MOTIFSIM - MOTIF SIMilarity Detection Tool

Version 2.2

INPUT

Input Parameters

Number of files:	5
Number of top significant motifs:	10
Number of best matches:	10
Similarity cutoff >=	0.75
Matching motif database:	UniProbe Mus Musculus
Motif tree:	Yes
Combined similar motifs:	Yes
Output file type:	All
Output file format:	All

Input files and motif counts

File name	Count of motifs	Dataset number
MEME_DM05.txt	46	1
MEME-ChIP_DM05.txt	4	2
PScanChIP_DM05.txt	16	3
RSAT_peak-motifs_DM05.txt	17	4
W-ChIPMotifs_DM05.txt	11	5

RESULTS

Top 10 Significant Motifs - Global Matching (Highest to Lowest)

Dataset #: 5 **Motif ID: 84** **Motif name: TFW3**

Original motif Consensus sequence: GCACTG

Reverse complement motif Consensus sequence: CAGTGC

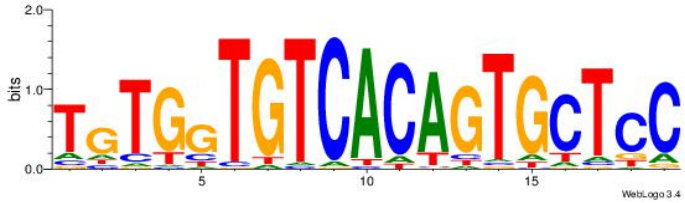
Best Matches for Top Significant Motif ID 84 (Highest to Lowest)

Dataset #:	4
Motif ID:	67
Motif name:	TgTGgTGTCACAGTGCTCC
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	11
Number of overlap:	6
Similarity score:	0

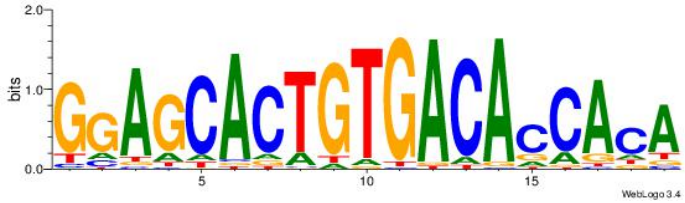
Alignment:

```
TGTGGTGTCACAGTGCTCC
---CAGTGC----------
```

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA

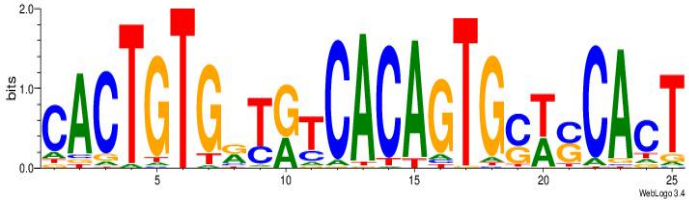


Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	7
Number of overlap:	6
Similarity score:	0.000794289

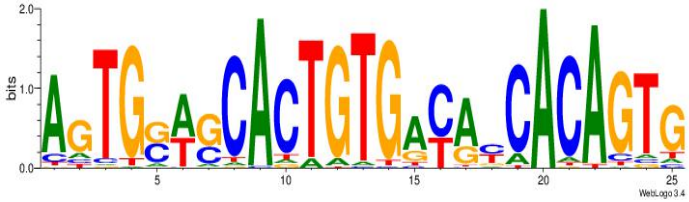
Alignment:

```
CACTGTGRTRTCACAGTGSWSCACT
------CAGTGC-------------
```

Original motif Consensus sequence: CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence: AGTGSWSCACTGTGAMAMCACAGTG

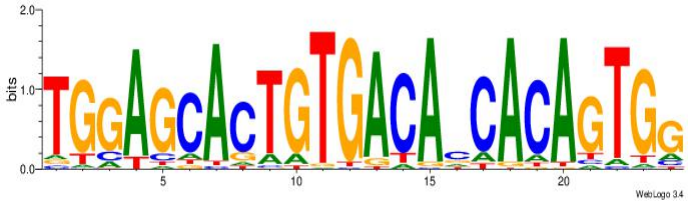


Dataset #:	4
Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	5
Number of overlap:	6
Similarity score:	0.00482436

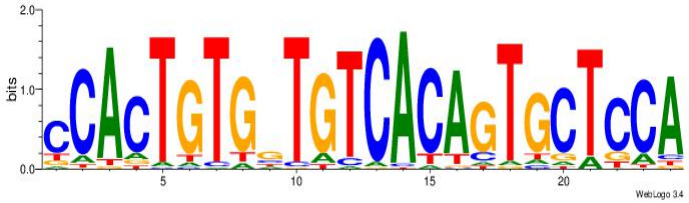
Alignment:

```
CCACTGTGVTGTCACAGTGCTCCA
--------------CAGTGC----
```

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

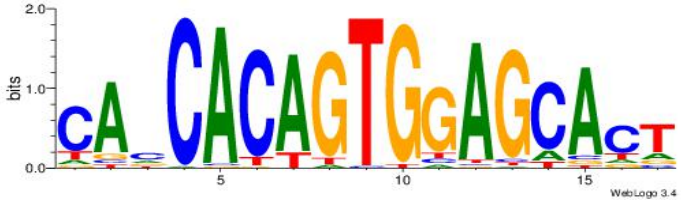


Dataset #:	4
Motif ID:	76
Motif name:	CAcCACAGTGGAGCAct
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	7

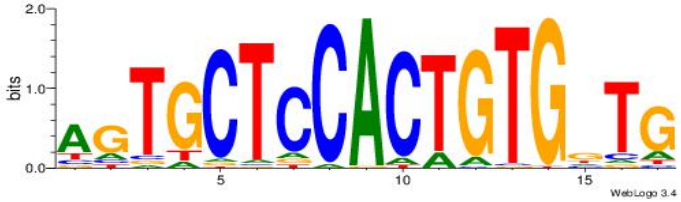
Number of overlap: 6
Similarity score: 0.0201914

Alignment:
CAHCACAGTGGAGCACT
------CAGTGC-----

Original motif Consensus sequence: CAHCACAGTGGAGCACT



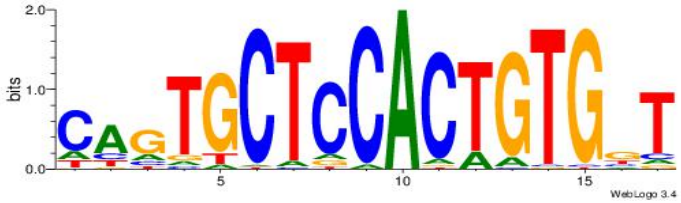
Reverse complement motif Consensus sequence: AGTGCTCCACTGTGDTG



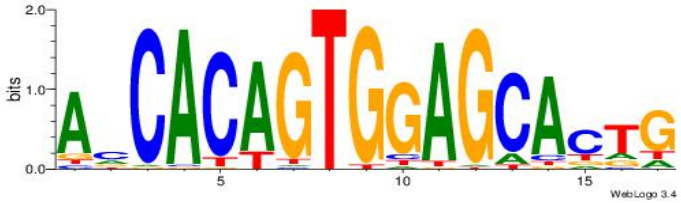
Dataset #: 4
Motif ID: 70
Motif name: CagTGCTCCACTGTGgT
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 5
Number of overlap: 6
Similarity score: 0.0205497

Alignment:
ABCACAGTGGAGCACTG
----CAGTGC-------

Original motif Consensus sequence: CAGTGCTCCACTGTGBT



Reverse complement motif Consensus sequence: ABCACAGTGGAGCACTG

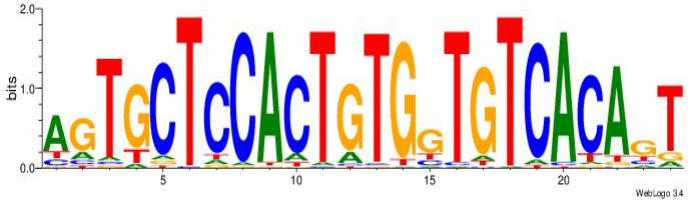


Dataset #:	4
Motif ID:	77
Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	13
Number of overlap:	6
Similarity score:	0.0290883

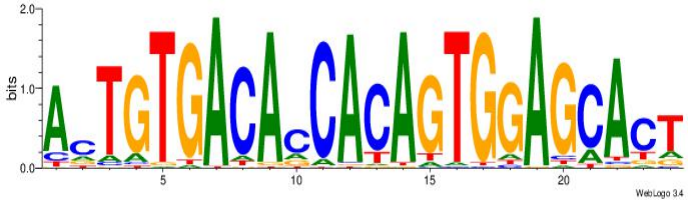
Alignment:

```
AGTGCTCCACTGTGGTGTCACAGT
------GCACTG------------
```

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT

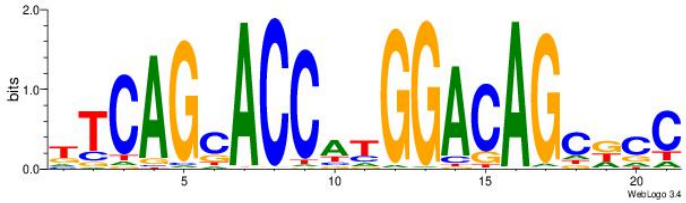


Dataset #:	3
Motif ID:	57
Motif name:	REST
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	15
Number of overlap:	6
Similarity score:	0.039883

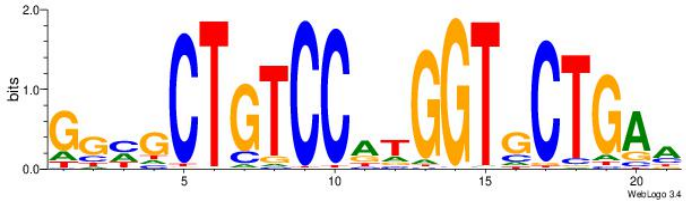
Alignment:

```
TTCAGCACCATGGACAGCKCC
-CAGTGC--------------
```

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA

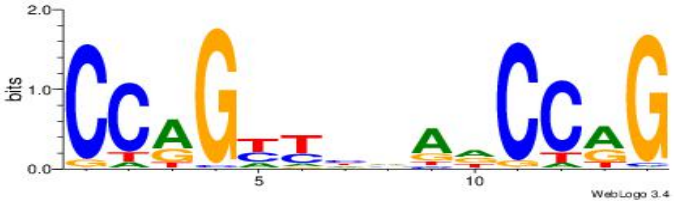


Dataset #:	3
Motif ID:	65
Motif name:	Tcfcp2l1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	8

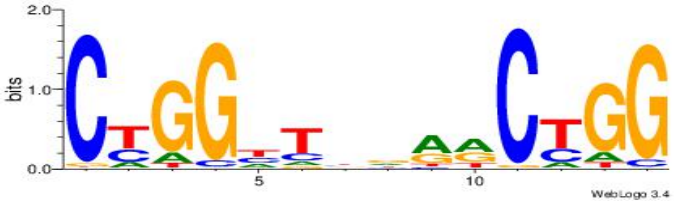
Number of overlap: 6
Similarity score: 0.0447224

Alignment:
CCAGYYHVADCCRG
-------CAGTGC-

Original motif Consensus sequence: CCAGYYHVADCCRG



Reverse complement motif Consensus sequence: CKGGDTBDMMCT

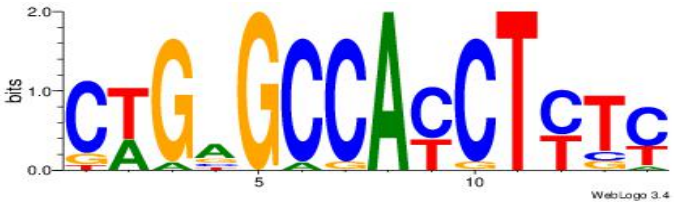


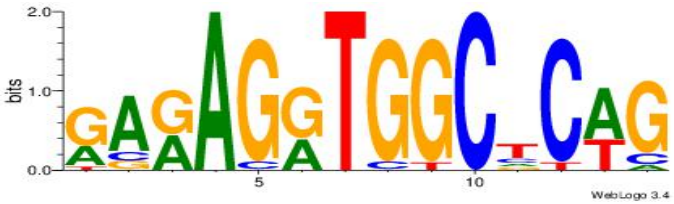
Dataset #: 1
Motif ID: 5
Motif name: Motif 5
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 9
Number of overlap: 6
Similarity score: 0.0459818

Alignment:
CWGAGCCAYCTYTC
--------CAGTGC

Original motif Consensus sequence: CWGAGCCAYCTYTC

Reverse complement motif Consensus sequence: GAKAGKTGGCTCW



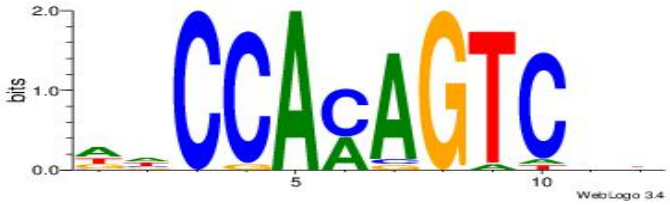


Dataset #:	4
Motif ID:	75
Motif name:	wwCCAmAGTCmt
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	6
Number of overlap:	6
Similarity score:	0.0587933

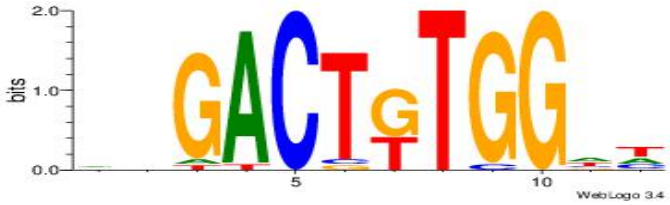
Alignment:

```
VDGACTRTGGDD
-----GCACTG-
```

Original motif Consensus sequence: DDCCAMAGTCHB



Reverse complement motif Consensus sequence: VDGACTRTGGDD



Dataset #: 5 Motif ID: 85 Motif name: TFW1

Original motif Consensus sequence: TTGCGCAA

Reverse complement motif Consensus sequence: TTGCGCAA

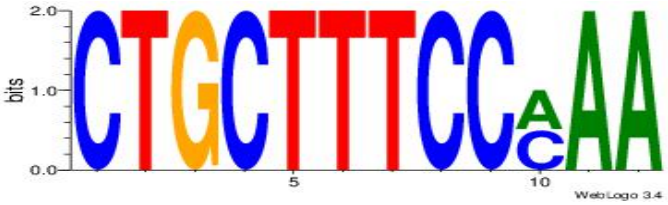
Best Matches for Top Significant Motif ID 85 (Highest to Lowest)

Dataset #:	1
Motif ID:	21
Motif name:	Motif 21
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	8
Similarity score:	0.0195312

Alignment:

```
TTYGGAAAGCAG
----TTGCGCAA
```

Original motif Consensus sequence: CTGCTTTCCMAA



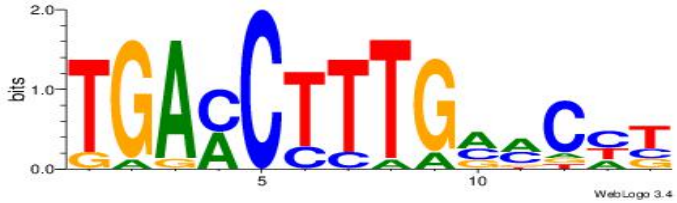
Reverse complement motif Consensus sequence: TTYGGAAAGCAG

Dataset #:	3
Motif ID:	52
Motif name:	NR2F1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	8
Similarity score:	0.0276442

Alignment:

```
AKGYYCAAAGRTCA
TTGCGCAA------
```

Original motif Consensus sequence: TGAMCTTTGMMCYT



Reverse complement motif Consensus sequence: AKGYYCAAAGRTCA

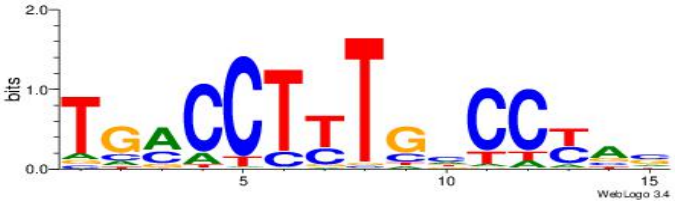
Dataset #:	3
Motif ID:	64
Motif name:	PPARGRXRA
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	7
Number of overlap:	8

Similarity score: 0.0277567

Alignment:
BTRGGDCARAGGKCA
------TTGCGCAA-

Original motif Consensus sequence: BTRGGDCARAGGKCA

Reverse complement motif Consensus sequence: TGRCCTKTGHCCK

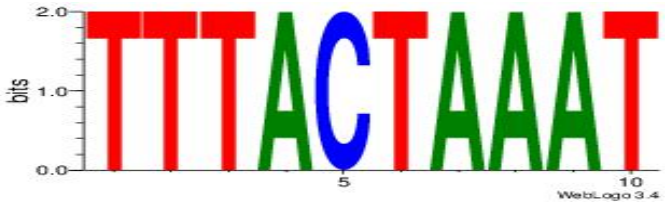


Dataset #: 1
Motif ID: 28
Motif name: Motif 28
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 2
Number of overlap: 8
Similarity score: 0.0328125

Alignment:
TTTACTAAAT
-TTGCGCAA-

Original motif Consensus sequence: ATTTAGTAAA

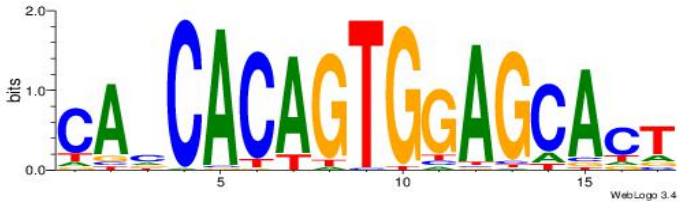
Reverse complement motif Consensus sequence: TTTACTAAAT



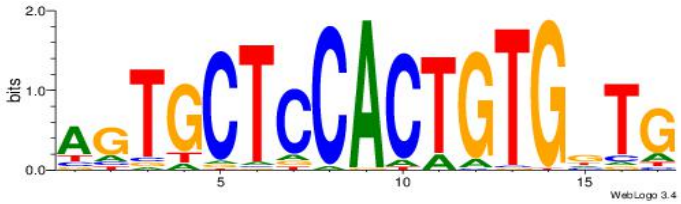
Dataset #: 4
Motif ID: 76
Motif name: CAcCACAGTGGAGCAct
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 2
Number of overlap: 8
Similarity score: 0.0336914

Alignment:
CAHCACAGTGGAGCACT
-TTGCGCAA--------

Original motif Consensus sequence: CAHCACAGTGGAGCACT



Reverse complement motif Consensus sequence: AGTGCTCCACTGTGDTG



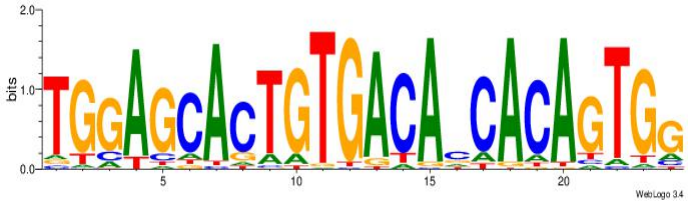
Dataset #: 4

Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	17
Number of overlap:	8
Similarity score:	0.0338471

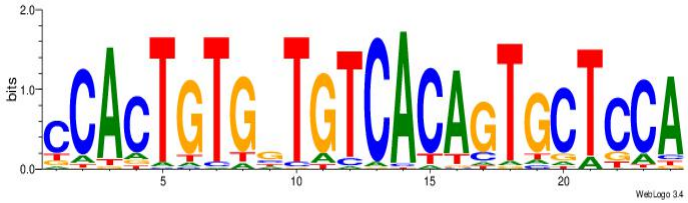
Alignment:

```
TGGAGCACTGTGACAVCACAGTGG
TTGCGCAA----------------
```

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

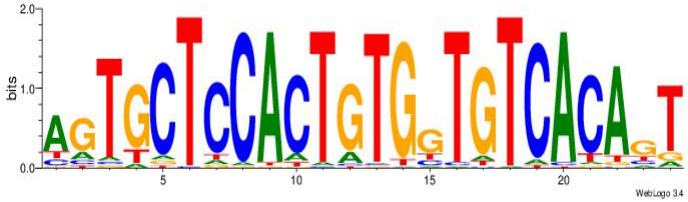


Dataset #:	4
Motif ID:	77
Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	8

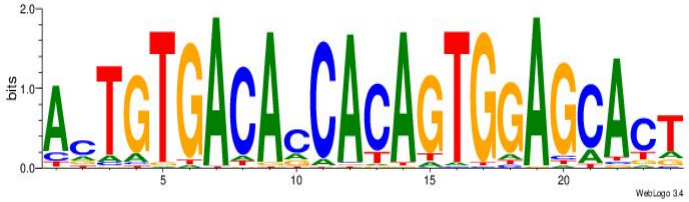
Similarity score: 0.034375

Alignment:
AGTGCTCCACTGTGGTGTCACAGT
----------TTGCGCAA-

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT

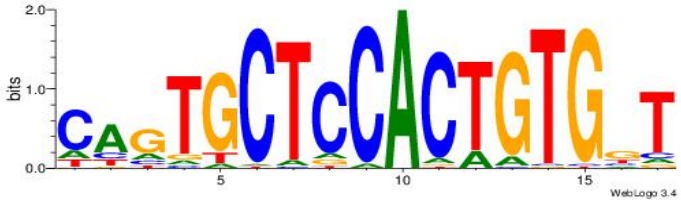


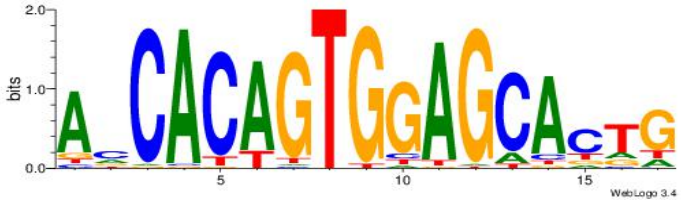
Dataset #: 4
Motif ID: 70
Motif name: CagTGCTCCACTGTGgT
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Backward
Position number: 3
Number of overlap: 8
Similarity score: 0.0354167

Alignment:
CAGTGCTCCACTGTGBT
-------TTGCGCAA--

Original motif Consensus sequence: CAGTGCTCCACTGTGBT

Reverse complement motif Consensus sequence: ABCACAGTGGAGCACTG



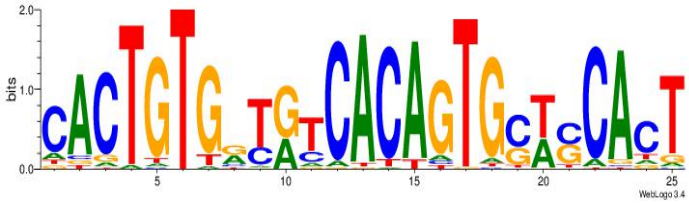


Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	8
Similarity score:	0.0407242

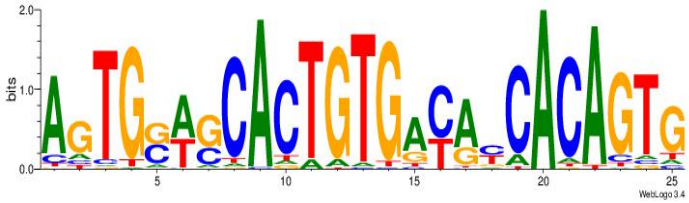
Alignment:

```
CACTGTGRTRTCACAGTGSWSCACT
---------------TTGCGCAA--
```

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG



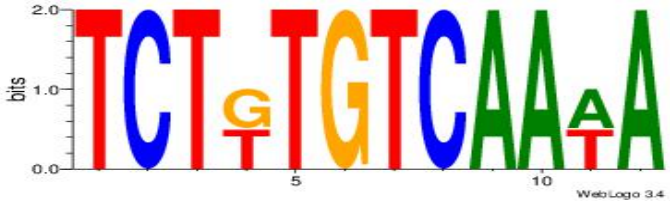
Dataset #:	1

Motif ID:	16
Motif name:	Motif 16
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	8
Similarity score:	0.0421875

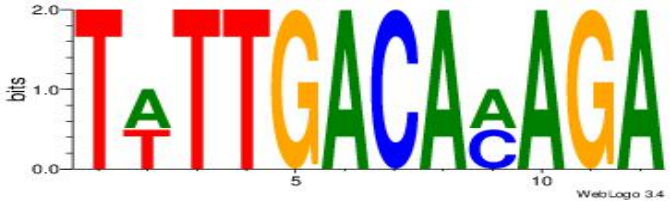
Alignment:

```
TWTTGACAYAGA
--TTGCGCAA--
```

Original motif Consensus sequence: TCTKTGTCAAWA



Reverse complement motif Consensus sequence: TWTTGACAYAGA



Dataset #: 3 Motif ID: 55 Motif name: ZEB1

Original motif Consensus sequence: CACCTD

Reverse complement motif Consensus sequence: HAGGTG

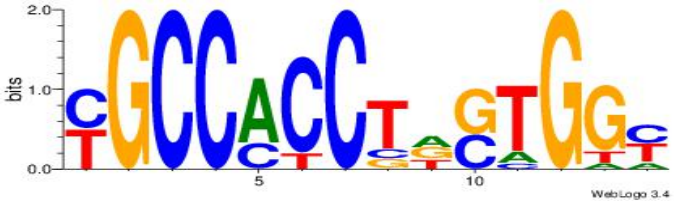
Best Matches for Top Significant Motif ID 55 (Highest to Lowest)

Dataset #:	2
Motif ID:	47
Motif name:	Motif 47
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	4
Number of overlap:	6
Similarity score:	0

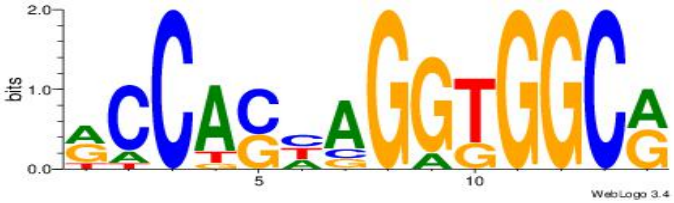
Alignment:

```
YGCCACCTDSTGGY
---CACCTD-----
```

Original motif Consensus sequence: YGCCACCTDSTGGY



Reverse complement motif Consensus sequence: KCCASDAGGTGGC



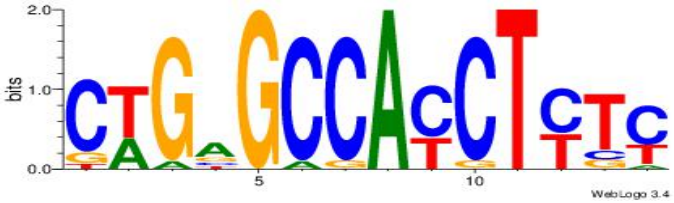
Dataset #:	1
Motif ID:	5
Motif name:	Motif 5
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif

Direction:	Forward
Position number:	7
Number of overlap:	6
Similarity score:	0.00902841

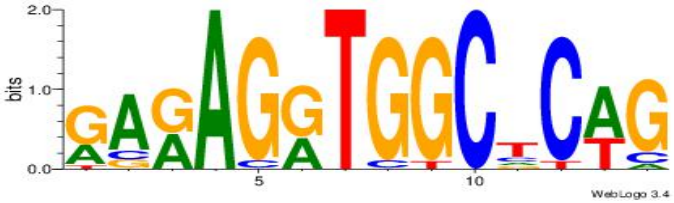
Alignment:

```
CWGAGCCAYCTYTC
------CACCTD--
```

Original motif Consensus sequence: CWGAGCCAYCTYTC



Reverse complement motif Consensus sequence: GAKAGKTGGCTCW



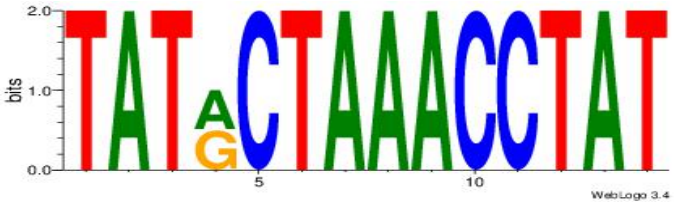
Dataset #:	1
Motif ID:	46
Motif name:	Motif 46
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	8
Number of overlap:	6
Similarity score:	0.0285279

Alignment:

```
TATKCTAAACCTAT
-CACCTD-------
```

Original motif Consensus sequence: ATAGGTTTAGYATA

Reverse complement motif Consensus sequence: TATKCTAAACCTAT

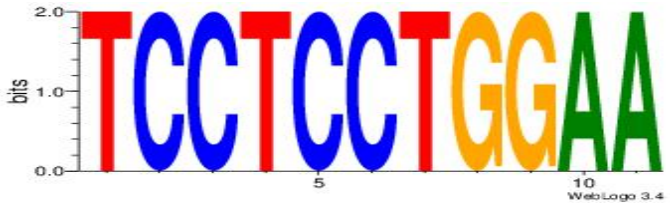


Dataset #:	1
Motif ID:	20
Motif name:	Motif 20
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	6
Similarity score:	0.0346255

Alignment:

```
TCCTCCTGGAA
--CACCTD---
```

Original motif Consensus sequence: TCCTCCTGGAA



Reverse complement motif Consensus sequence: TTCCAGGAGGA

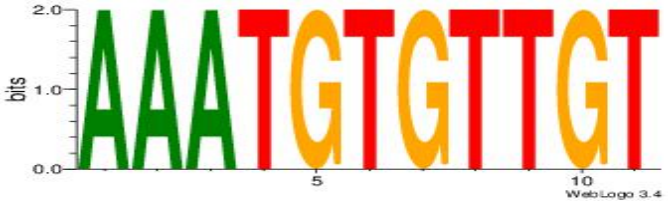
Dataset #:	1
Motif ID:	12
Motif name:	Motif 12
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	5
Number of overlap:	6
Similarity score:	0.0376742

Alignment:

```
ACAACACATTT
----CACCTD-
```

Original motif Consensus sequence: ACAACACATTT

Reverse complement motif Consensus sequence: AAATGTGTTGT



Dataset #:	1
Motif ID:	34
Motif name:	Motif 34
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	6

Similarity score: 0.0397068

Alignment:
AAAGATGA
-HAGGTG-

Original motif Consensus sequence: AAAGATGA

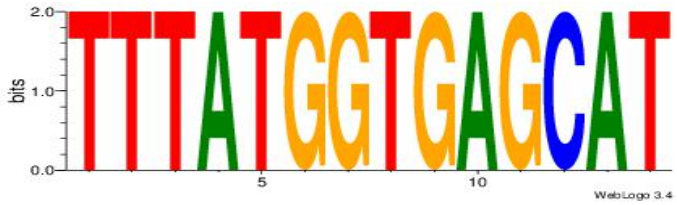
Reverse complement motif Consensus sequence: TCATCTTT

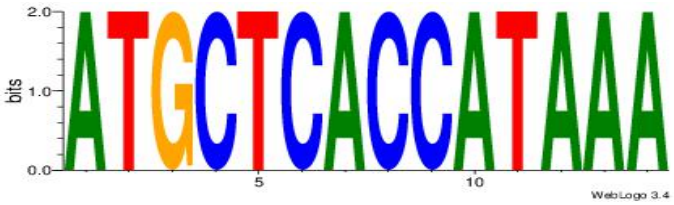
Dataset #:	1
Motif ID:	22
Motif name:	Motif 22
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	4
Number of overlap:	6
Similarity score:	0.0397068

Alignment:
TTTATGGTGAGCAT
-----HAGGTG---

Original motif Consensus sequence: TTTATGGTGAGCAT

Reverse complement motif Consensus sequence: ATGCTCACCATAA



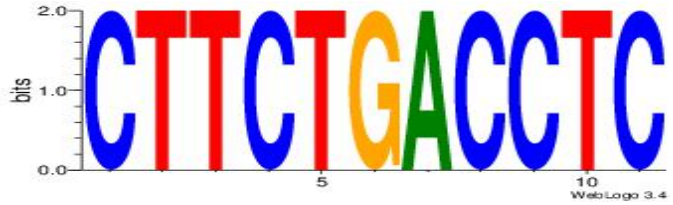


Dataset #:	1
Motif ID:	17
Motif name:	Motif 17
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	6
Number of overlap:	6
Similarity score:	0.0458043

Alignment:

```
GAGGTCAGAAG
HAGGTG-----
```

Original motif Consensus sequence: CTTCTGACCTC



Reverse complement motif Consensus sequence: GAGGTCAGAAG

Dataset #:	5
Motif ID:	92

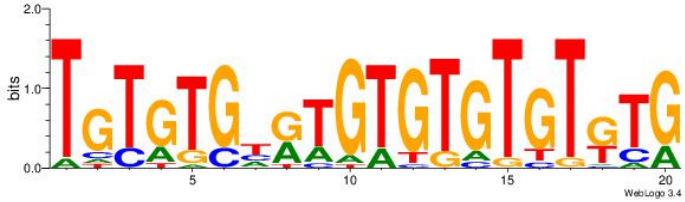
Motif name:	TFM11
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	7
Number of overlap:	6
Similarity score:	0.0461561

Alignment:

```
CAMACACACACAYDCACACA
--------CACCTD------
```

Original motif Consensus sequence: CAMACACACACAYDCACACA

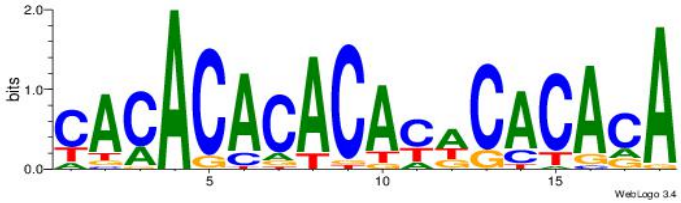
Reverse complement motif Consensus sequence: TGTGTGDKTGTGTGTGTRTG



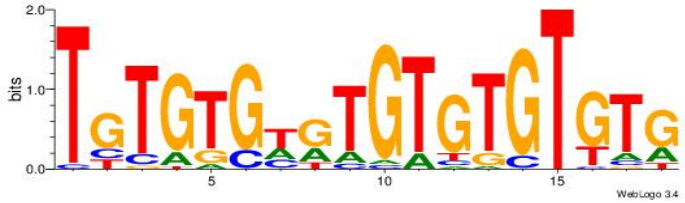
Dataset #:	5
Motif ID:	89
Motif name:	TFM1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	7
Number of overlap:	6
Similarity score:	0.0467843

Alignment:
CACACACACACWCACACA
------CACCTD------

Original motif Consensus sequence: CACACACACACWCACACA

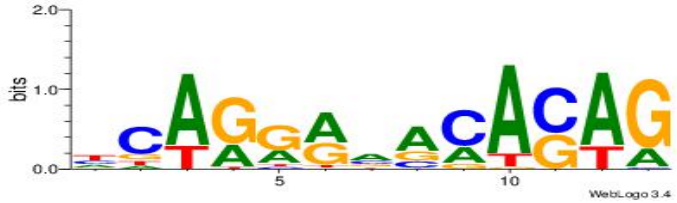


Reverse complement motif Consensus sequence: TGTGTGWGTGTGTGTGTG

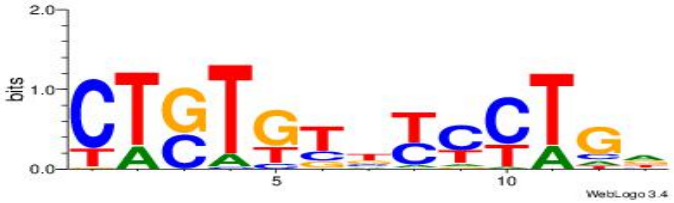


Dataset #: 1 Motif ID: 3 Motif name: Motif 3

Original motif Consensus sequence: HCAGRRVACASAG



Reverse complement motif Consensus sequence: CTSTGTBKMCTGH



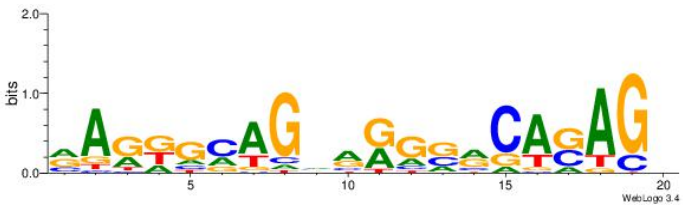
Best Matches for Top Significant Motif ID 3 (Highest to Lowest)

Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward

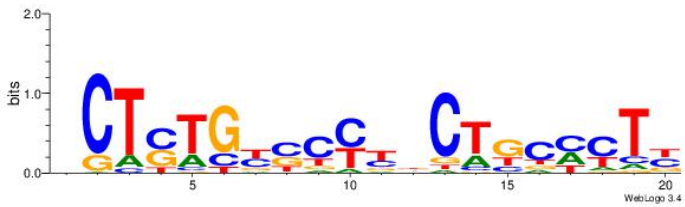
Position number: 7
Number of overlap: 13
Similarity score: 0.00926418

Alignment:
RAGKGMAGVRRGSRCASAGV
------HCAGRRVACASAG-

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



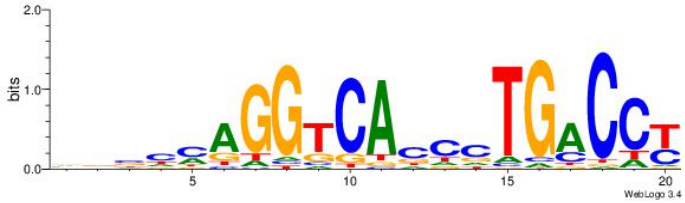
Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK



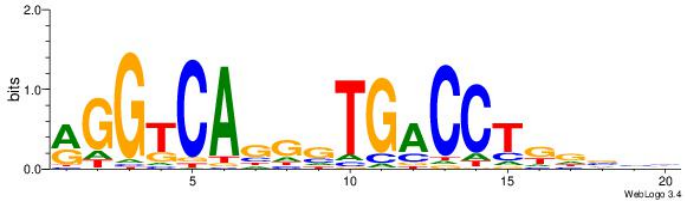
Dataset #: 3
Motif ID: 53
Motif name: ESR1
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 4
Number of overlap: 13
Similarity score: 0.0328703

Alignment:
VDBHMAGGTCACCCTGACCY
---HCAGRRVACASAG----

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

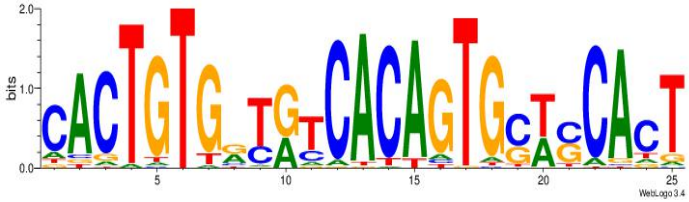


Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	13
Similarity score:	0.0400966

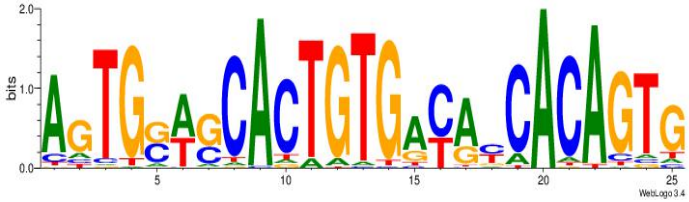
Alignment:

```
AGTGSWSCACTGTGAMAMCACAGTG
----------HCAGRRVACASAG--
```

Original motif Consensus sequence: CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence: AGTGSWSCACTGTGAMAMCACAGTG

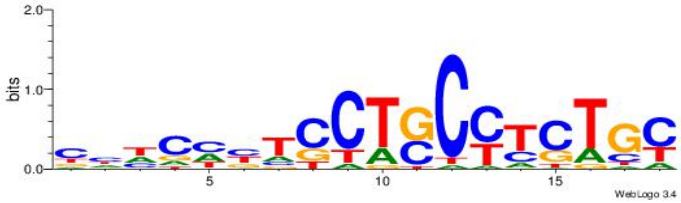


Dataset #:	5
Motif ID:	90
Motif name:	TFM2
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	13
Similarity score:	0.0435274

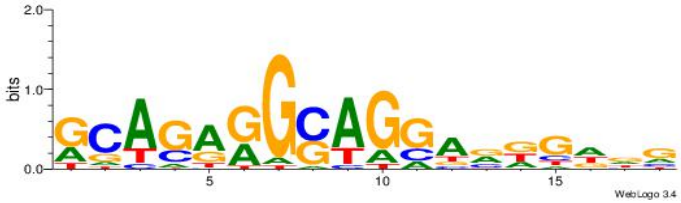
Alignment:

```
GCAGAKGSAGGABDGHDG
--HCAGRRVACASAG---
```

Original motif Consensus sequence: CHHCHBTCCTSCYTCTGC



Reverse complement motif Consensus sequence: GCAGAKGSAGGABDGHDG

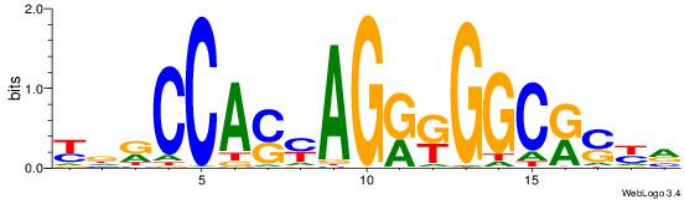


Dataset #:	3
Motif ID:	66
Motif name:	CTCF
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	7

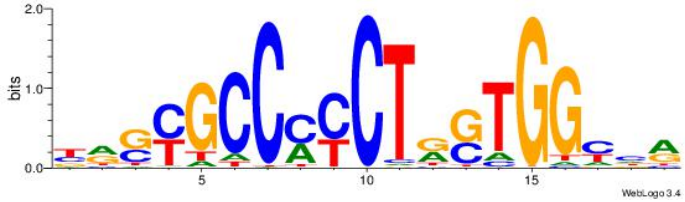
Number of overlap: 13
Similarity score: 0.0448341

Alignment:
YDRCCASYAGRKGGCRSYV
------HCAGRRVACASAG

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



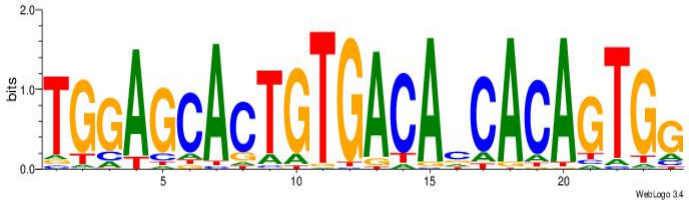
Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM



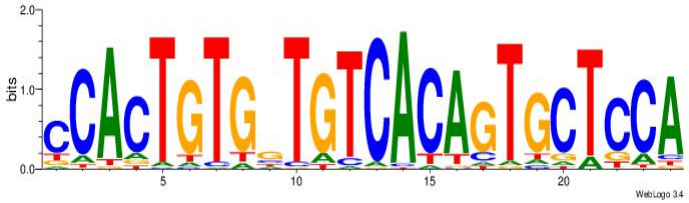
Dataset #: 4
Motif ID: 73
Motif name: TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 4
Number of overlap: 13
Similarity score: 0.045698

Alignment:
CCACTGTGVTGTCACAGTGCTCCA
---CTSTGTBKMCTGH--------

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

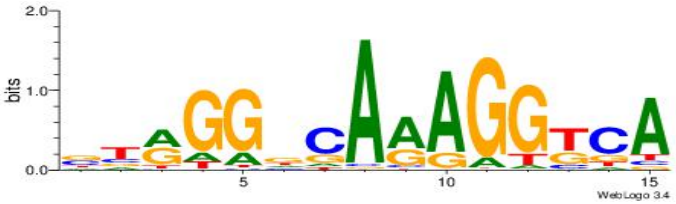


Dataset #:	3
Motif ID:	64
Motif name:	PPARGRXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	13
Similarity score:	0.0457253

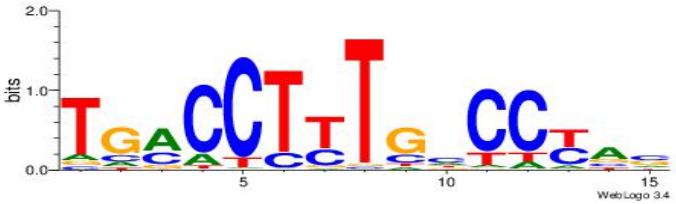
Alignment:

```
BTRGGDCARAGGKCA
HCAGRRVACASAG--
```

Original motif Consensus sequence: BTRGGDCARAGGKCA



Reverse complement motif Consensus sequence: TGRCCTKTGHCCK

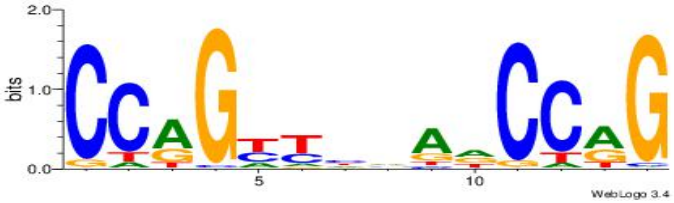


Dataset #:	3
Motif ID:	65
Motif name:	Tcfcp2l1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	13
Similarity score:	0.0477557

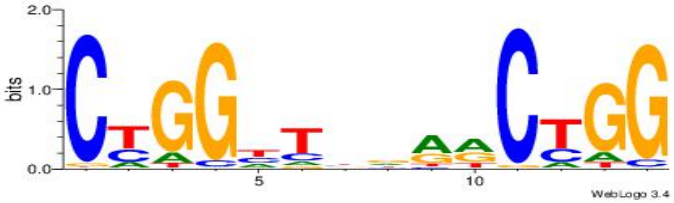
Alignment:

```
CKGGDTBDMMCTGG
CTSTGTBKMCTGH-
```

Original motif Consensus sequence: CCAGYYHVADCCRG



Reverse complement motif Consensus sequence: CKGGDTBDMMCT

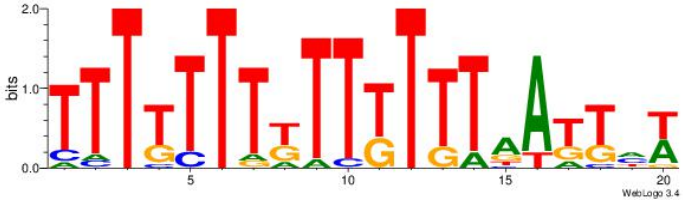


Dataset #:	5
Motif ID:	94
Motif name:	TFM13
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	13

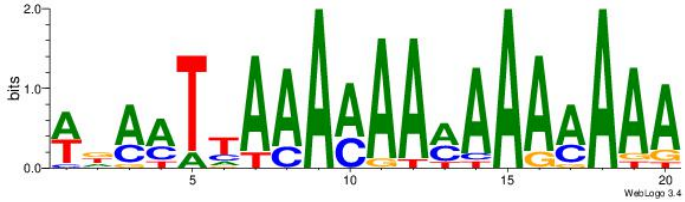
Similarity score: 0.0478998

Alignment:
WHAATTAAARAARAAAAAAA
----HCAGRRVACASAG---

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW



Reverse complement motif Consensus sequence:
WHAATTAAARAARAAAAAAA

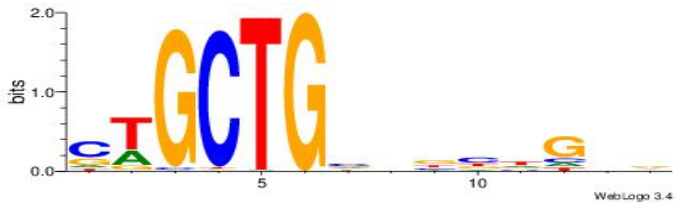


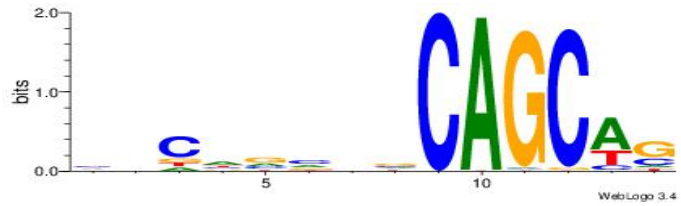
Dataset #: 5
Motif ID: 88
Motif name: TFF11
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 1
Number of overlap: 13
Similarity score: 0.048132

Alignment:
HVCDBBDBCAGCAG
-HCAGRRVACASAG

Original motif Consensus sequence: CTGCTGBDBBDGBD

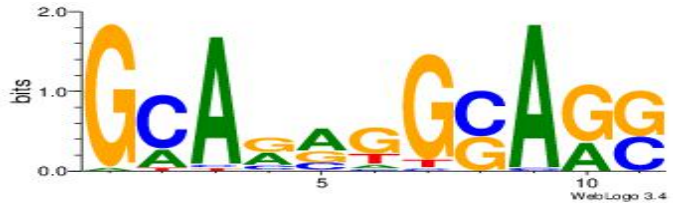
Reverse complement motif Consensus sequence: HVCDBBDBCAGCA



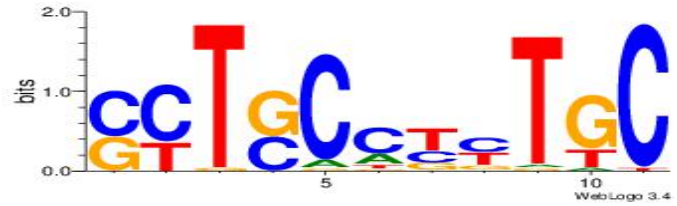


Dataset #: 2 **Motif ID: 48** **Motif name: Motif 48**

Original motif Consensus sequence: GCARRGGSAGS



Reverse complement motif Consensus sequence: SCTSCCKMTGC



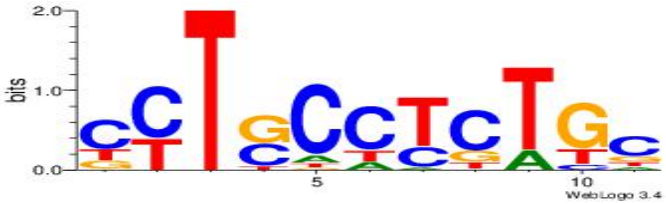
Best Matches for Top Significant Motif ID 48 (Highest to Lowest)

Dataset #:	1
Motif ID:	1
Motif name:	Motif 1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0

Alignment:

```
CYTSCCTCTGC
SCTSCCKMTGC
```

Original motif Consensus sequence: CYTSCCTCTGC



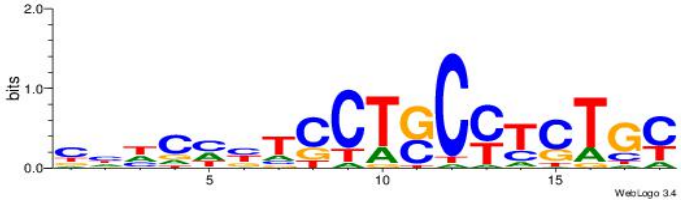
Reverse complement motif Consensus sequence: GCAGAGGSAKG

Dataset #:	5
Motif ID:	90
Motif name:	TFM2
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.000952693

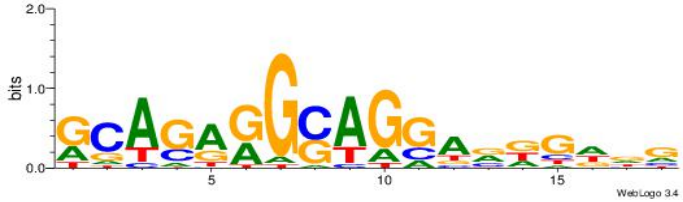
Alignment:

```
GCAGAKGSAGGABDGHDG
GCARRGGSAGS-------
```

Original motif Consensus sequence: CHHCHBTCCTSCYTCTGC



Reverse complement motif Consensus sequence: GCAGAKGSAGGABDGHDG

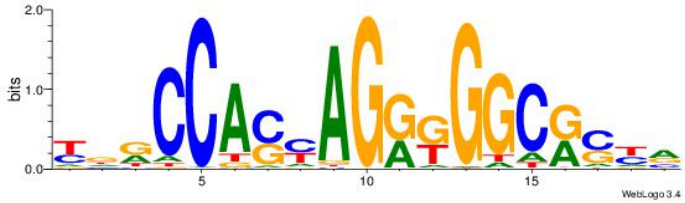


Dataset #:	3
Motif ID:	66
Motif name:	CTCF
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	11
Similarity score:	0.033658

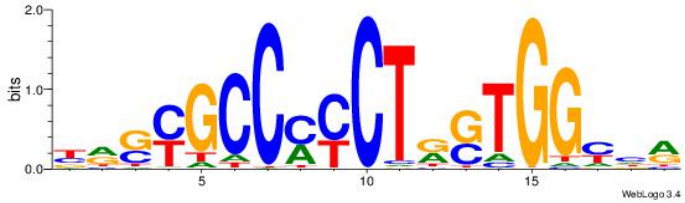
Alignment:

```
YDRCCASYAGRKGGCRSYV
------GCARRGGSAGS--
```

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM

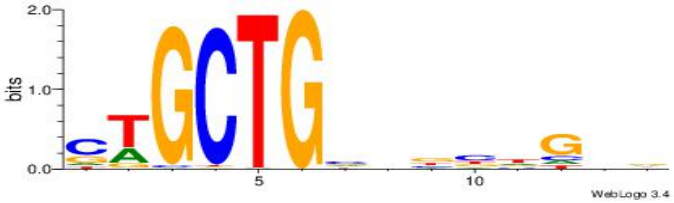


Dataset #:	5
Motif ID:	88
Motif name:	TFF11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3

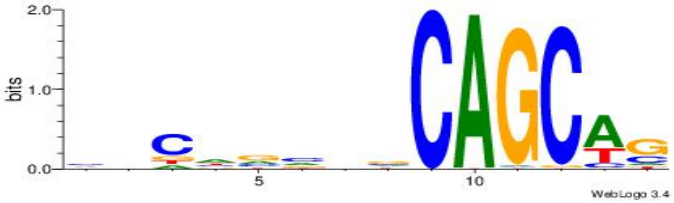
Number of overlap: 11
Similarity score: 0.0410341

Alignment:
CTGCTGBDBBDGBD
--SCTSCCKMTGC-

Original motif Consensus sequence: CTGCTGBDBBDGBD



Reverse complement motif Consensus sequence: HVCDBBDBCAGCA

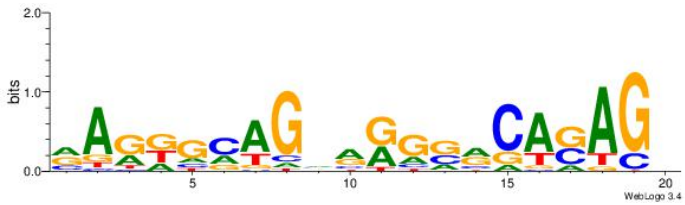


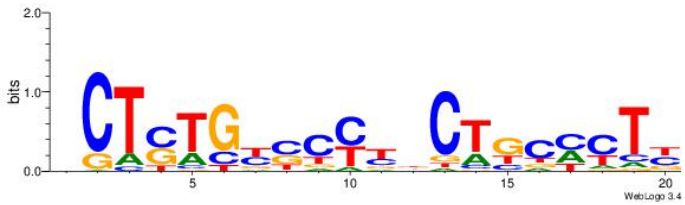
Dataset #: 5
Motif ID: 93
Motif name: TFM12
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 6
Number of overlap: 11
Similarity score: 0.0422459

Alignment:
RAGKGMAGVRRGSRCASAGV
----GCARRGGSAGS-----

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV

Reverse complement motif Consensus sequence:
VCTSTGKSCMKBCTRCYCTK



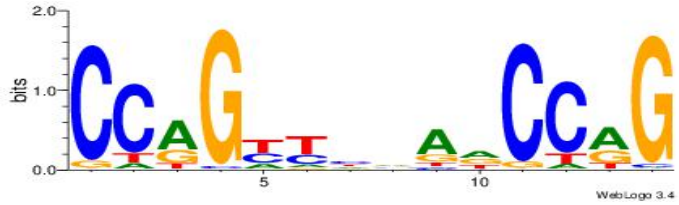


Dataset #:	3
Motif ID:	65
Motif name:	Tcfcp2l1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.0533531

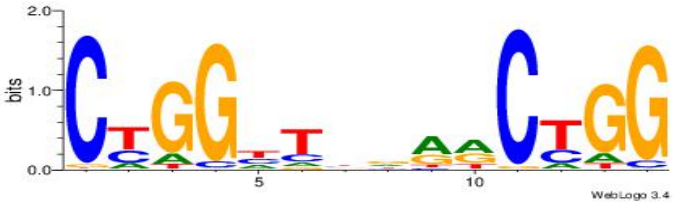
Alignment:

```
CCAGYYHVADCCRG
SCTSCCKMTGC---
```

Original motif Consensus sequence: CCAGYYHVADCCRG



Reverse complement motif Consensus sequence: CKGGDTBDMMCTG



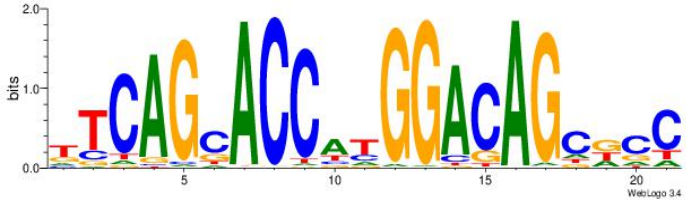
Dataset #:	3
Motif ID:	57

Motif name:	REST
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	11
Similarity score:	0.0578944

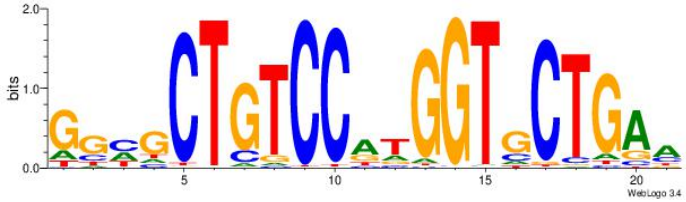
Alignment:

```
GGYGCTGTCCATGGTGCTGAA
---SCTSCCKMTGC-------
```

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



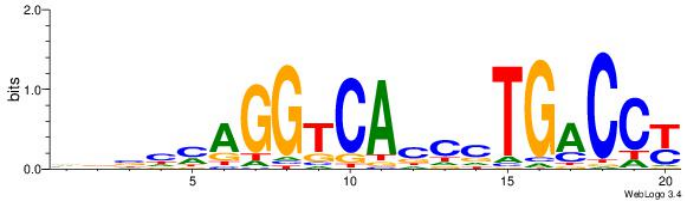
Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA



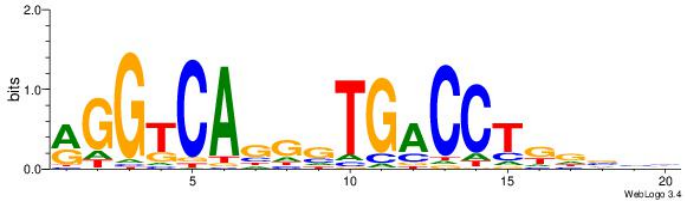
Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	11
Similarity score:	0.0620615

Alignment:
VDBHMAGGTCACCCTGACCY
--GCARRGGSAGS-------

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

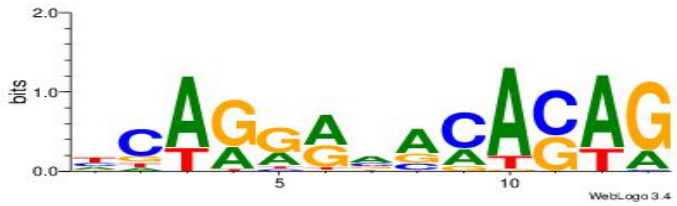


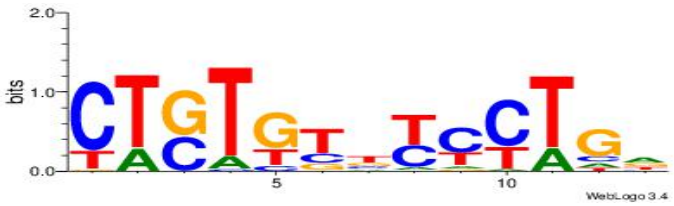
Dataset #:	1
Motif ID:	3
Motif name:	Motif 3
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.0627554

Alignment:
HCAGRRVACASAG
GCARRGGSAGS--

Original motif Consensus sequence: HCAGRRVACASAG

Reverse complement motif Consensus sequence: CTSTGTBKMCTGH



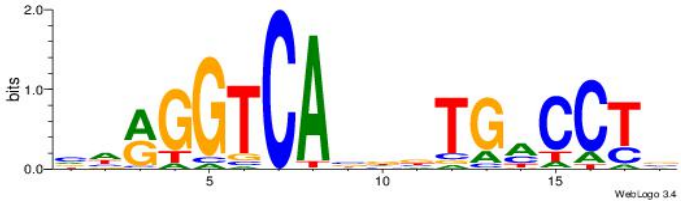


Dataset #:	3
Motif ID:	59
Motif name:	ESR2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	5
Number of overlap:	11
Similarity score:	0.0646979

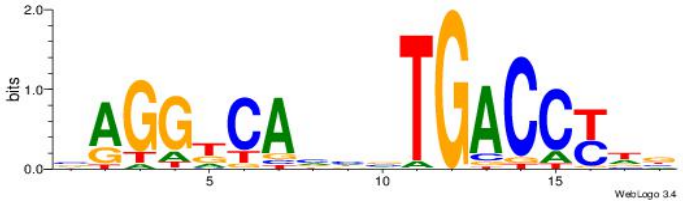
Alignment:

```
VHRGGTCABDBTGMCCTB
---SCTSCCKMTGC----
```

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB

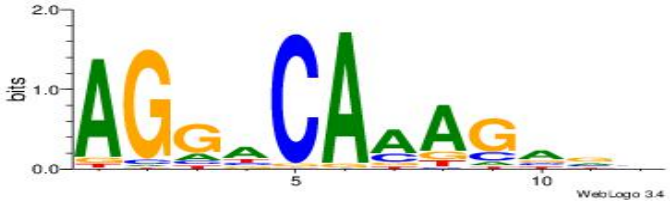


Reverse complement motif Consensus sequence: BAGGYCABHBTGACCKHV

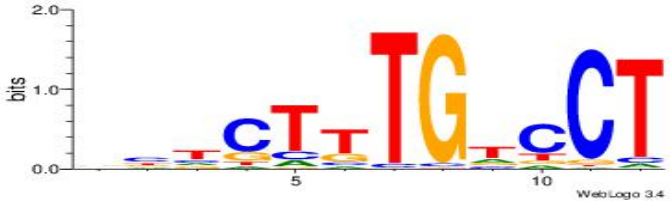


Dataset #: 5 Motif ID: 87 Motif name: TFF1

Original motif Consensus sequence: AGGACAAAGAVV



Reverse complement motif Consensus sequence: VVTCTTTGTCCT



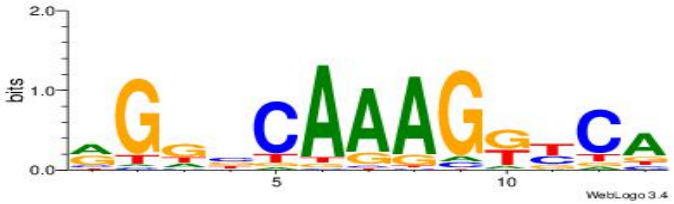
Best Matches for Top Significant Motif ID 87 (Highest to Lowest)

Dataset #:	3
Motif ID:	51
Motif name:	HNF4A
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	12
Similarity score:	0.0111472

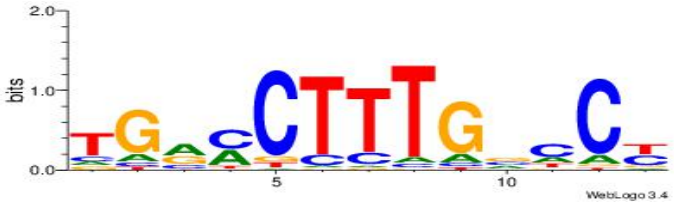
Alignment:

```
TGMYCTTTGBCCK
-VVTCTTTGTCCT
```

Original motif Consensus sequence: RGGBCAAAGKYCA



Reverse complement motif Consensus sequence: TGMYCTTTGBCCK

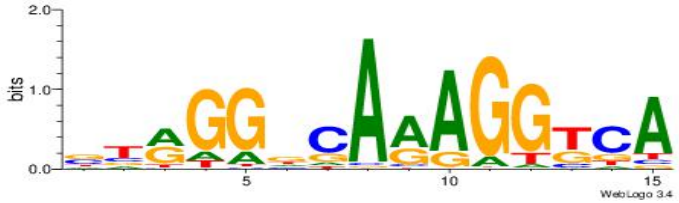


Dataset #:	3
Motif ID:	64
Motif name:	PPARGRXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	12
Similarity score:	0.0210867

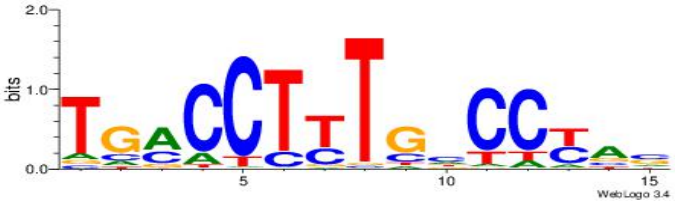
Alignment:

```
BTRGGDCARAGGKCA
--AGGACAAAGAVV-
```

Original motif Consensus sequence: BTRGGDCARAGGKCA



Reverse complement motif Consensus sequence: TGRCCTKTGHCCK

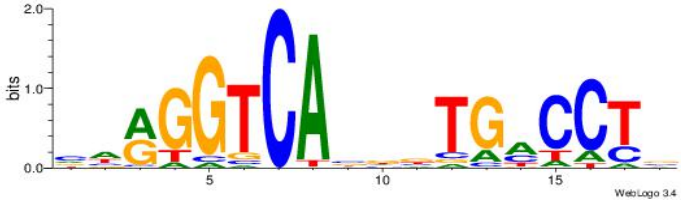


Dataset #:	3
Motif ID:	59
Motif name:	ESR2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	5
Number of overlap:	12

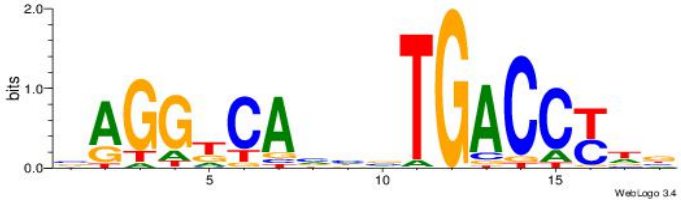
Similarity score: 0.0351633

Alignment:
BAGGYCABHBTGACCKHV
----VVTCTTTGTCCT--

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB



Reverse complement motif Consensus sequence:
BAGGYCABHBTGACCKHV

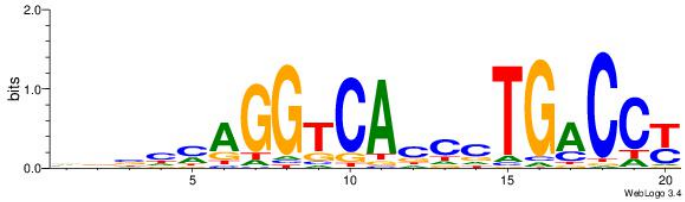


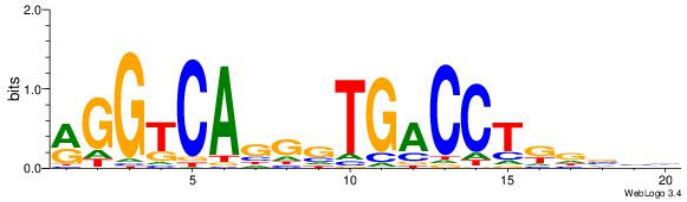
Dataset #: 3
Motif ID: 53
Motif name: ESR1
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Backward
Position number: 9
Number of overlap: 12
Similarity score: 0.039773

Alignment:
VDBHMAGGTCACCCTGACCY
VVTCTTTGTCCT--------

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY

Reverse complement motif Consensus sequence:
MGGTCAGGGTGACCTRDBHV





Dataset #:	3
Motif ID:	52
Motif name:	NR2F1
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	12
Similarity score:	0.0472374

Alignment:

```
AKGYYCAAAGRTCA
-AGGACAAAGAVV-
```

Original motif Consensus sequence: TGAMCTTTGMMCYT

Reverse complement motif Consensus sequence: AKGYYCAAAGRTCA

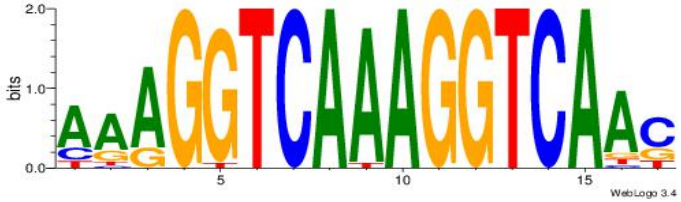
Dataset #:	3
Motif ID:	60

Motif name:	NR1H2RXRA
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	12
Similarity score:	0.0472884

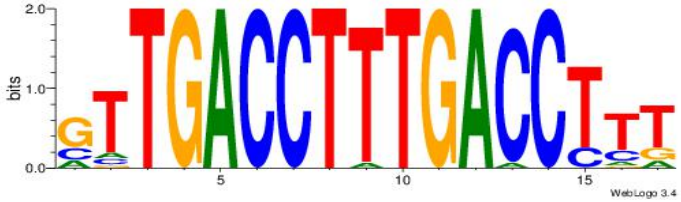
Alignment:

```
GTTGACCTTTGACCTTT
---VVTCTTTGTCCT--
```

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC



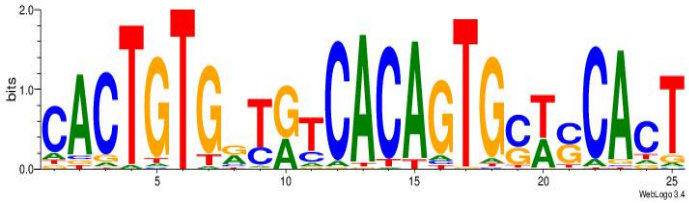
Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT



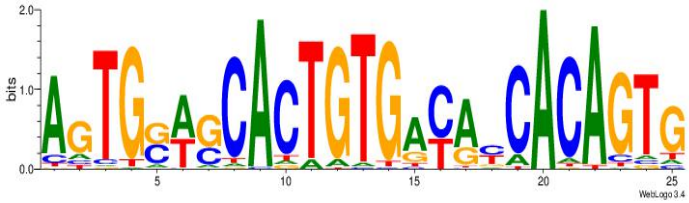
Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	7
Number of overlap:	12
Similarity score:	0.0530556

Alignment:
CACTGTGRTRTCACAGTGSWSCACT
-------AGGACAAAGAVV------

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG

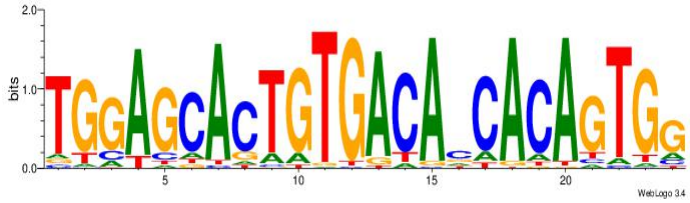


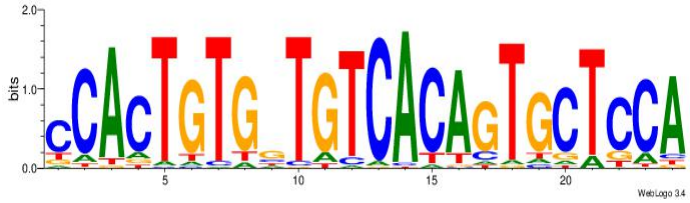
Dataset #:	4
Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	13
Number of overlap:	12
Similarity score:	0.0539204

Alignment:
TGGAGCACTGTGACAVCACAGTGG
----------AGGACAAAGAVV

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG

Reverse complement motif Consensus sequence:
CCACTGTGVTGTCACAGTGCTCCA

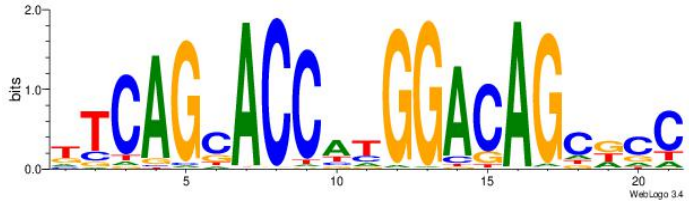




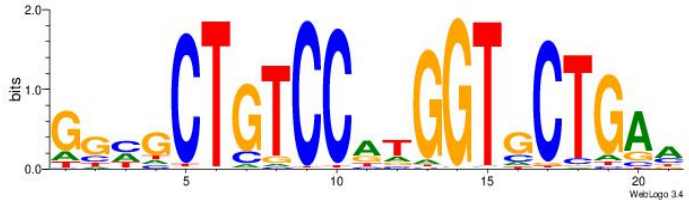
Dataset #: 3
Motif ID: 57
Motif name: REST
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 4
Number of overlap: 12
Similarity score: 0.0558379

Alignment:
TTCAGCACCATGGACAGCKCC
---AGGACAAAGAVV------

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA



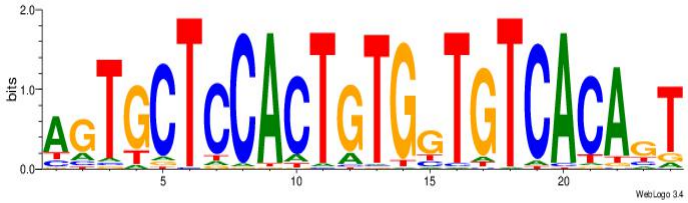
Dataset #: 4

Motif ID:	77
Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	7
Number of overlap:	12
Similarity score:	0.0609269

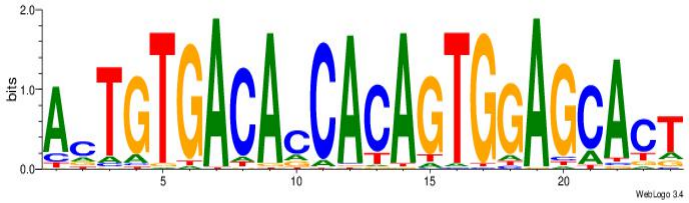
Alignment:

```
AGTGCTCCACTGTGGTGTCACAGT
------VVTCTTTGTCCT------
```

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT



Dataset #: 1 Motif ID: 37 Motif name: Motif 37

Original motif Consensus sequence: ACTTTGG

Reverse complement motif Consensus sequence: CCAAAGT

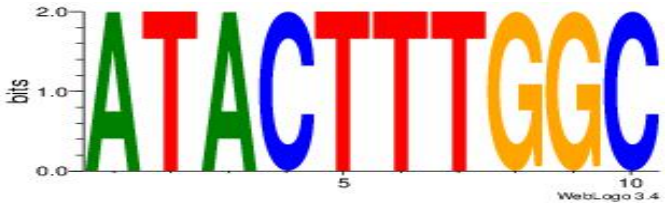
Best Matches for Top Significant Motif ID 37 (Highest to Lowest)

Dataset #:	4
Motif ID:	69
Motif name:	atactttggc
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	7
Similarity score:	0

Alignment:

```
GCCAAAGTAT
-CCAAAGT--
```

Original motif Consensus sequence: ATACTTTGGC



Reverse complement motif Consensus sequence: GCCAAAGTAT

Dataset #:	4
Motif ID:	75
Motif name:	wwCCAmAGTCmt
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif

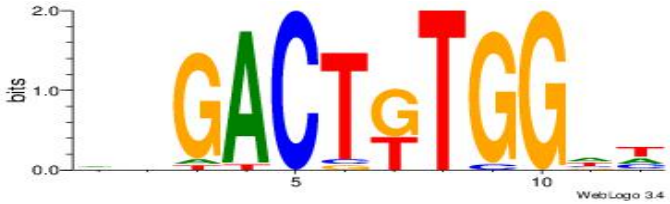
Direction:	Backward
Position number:	4
Number of overlap:	7
Similarity score:	0.0275974

Alignment:

```
DDCCAMAGTCHB
--CCAAAGT---
```

Original motif Consensus sequence: DDCCAMAGTCHB

Reverse complement motif Consensus sequence: VDGACTRTGGDD

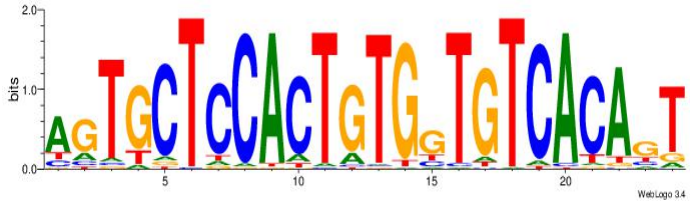


Dataset #:	4
Motif ID:	77
Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	10
Number of overlap:	7
Similarity score:	0.056841

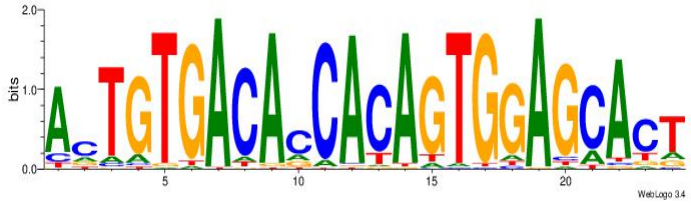
Alignment:

```
ACTGTGACACCACAGTGGAGCACT
---------CCAAAGT--------
```

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT

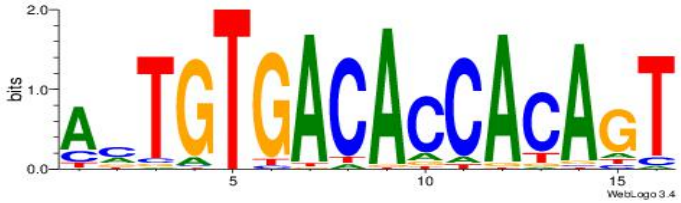


Dataset #:	4
Motif ID:	71
Motif name:	AmTGTGACACCACAGT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	10
Number of overlap:	7
Similarity score:	0.0597098

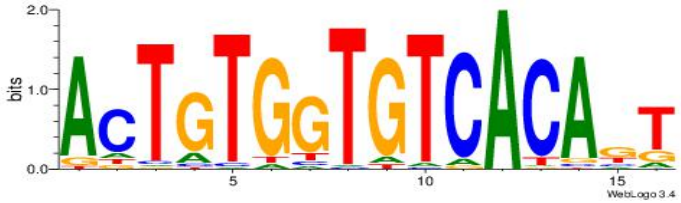
Alignment:

```
ACTGTGGTGTCACART
ACTTTGG---------
```

Original motif Consensus sequence: AMTGTGACACCACAGT



Reverse complement motif Consensus sequence: ACTGTGGTGTCACART

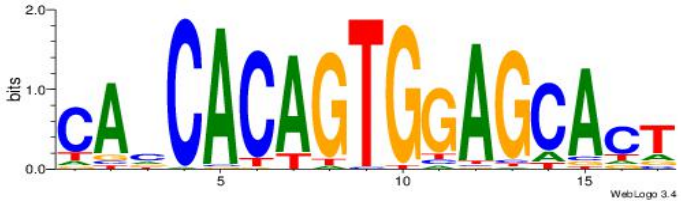


Dataset #:	4
Motif ID:	76
Motif name:	CAcCACAGTGGAGCAct
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	9
Number of overlap:	7
Similarity score:	0.061942

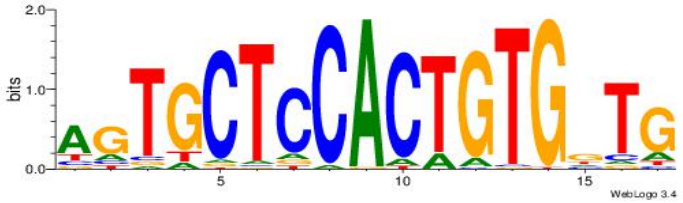
Alignment:

```
AGTGCTCCACTGTGDTG
--------ACTTTGG--
```

Original motif Consensus sequence: CAHCACAGTGGAGCACT



Reverse complement motif Consensus sequence: AGTGCTCCACTGTGDTG

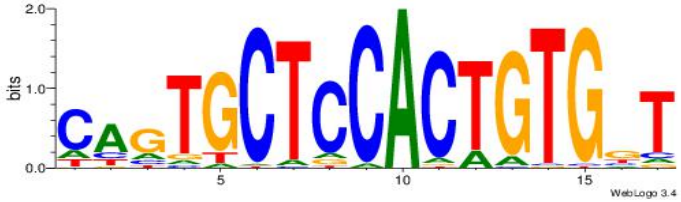


Dataset #:	4
Motif ID:	70
Motif name:	CagTGCTCCACTGTGgT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2

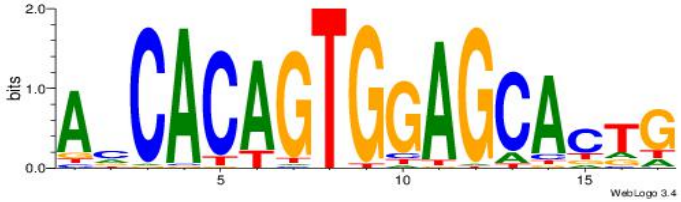
Number of overlap: 7
Similarity score: 0.0625

Alignment:
ABCACAGTGGAGCACTG
-CCAAAGT---------

Original motif Consensus sequence: CAGTGCTCCACTGTGBT



Reverse complement motif Consensus sequence: ABCACAGTGGAGCACTG

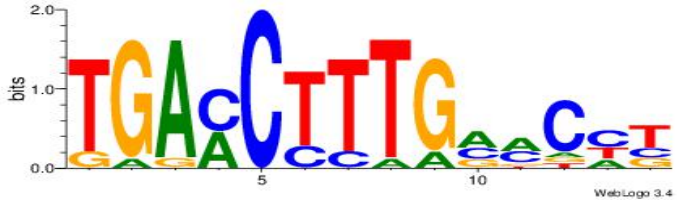


Dataset #: 3
Motif ID: 52
Motif name: NR2F1
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 4
Number of overlap: 7
Similarity score: 0.0686813

Alignment:
TGAMCTTTGMMCYT
---ACTTTGG----

Original motif Consensus sequence: TGAMCTTTGMMCYT

Reverse complement motif Consensus sequence: AKGYYCAAAGRTC

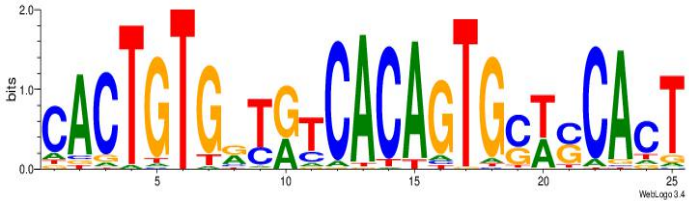


Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	7
Similarity score:	0.0714286

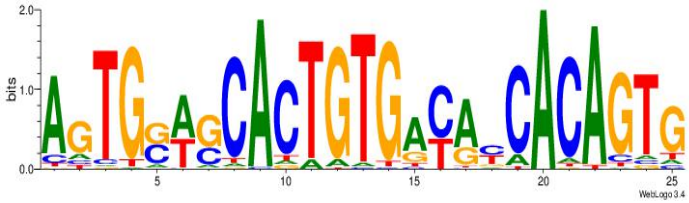
Alignment:

```
CACTGTGRTRTCACAGTGSWSCACT
-ACTTTGG-----------------
```

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG



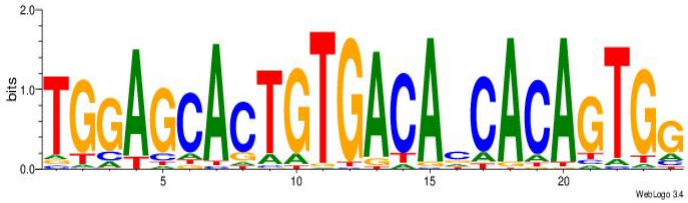
Dataset #:	4

Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	7
Similarity score:	0.0714286

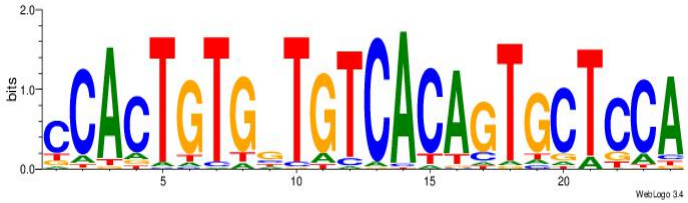
Alignment:

```
TGGAGCACTGTGACAVCACAGTGG
---------------CCAAAGT--
```

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

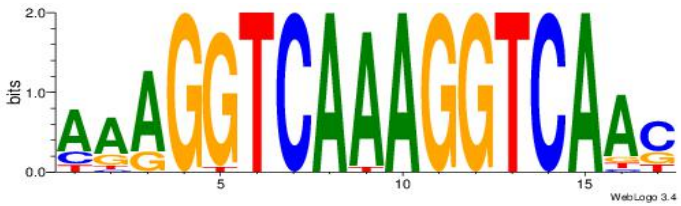


Dataset #:	3
Motif ID:	60
Motif name:	NR1H2RXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	5
Number of overlap:	7

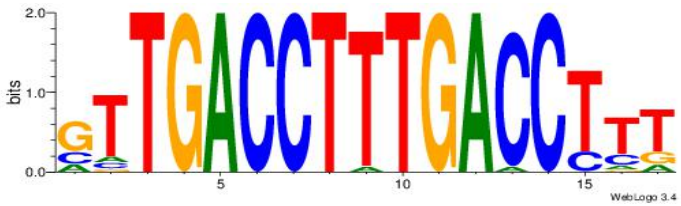
Similarity score: 0.0728571

Alignment:
GTTGACCTTTGACCTTT
----ACTTTGG------

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC



Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT



Dataset #: 2 Motif ID: 50 Motif name: Motif 50

Original motif Consensus sequence: GGAAM

Reverse complement motif Consensus sequence: YTTCC

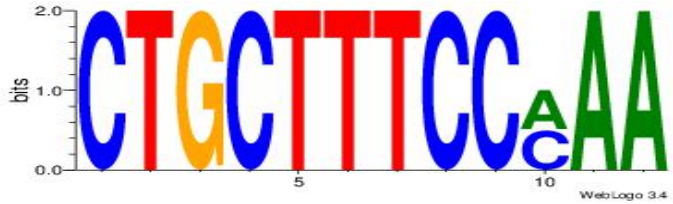
Best Matches for Top Significant Motif ID 50 (Highest to Lowest)

Dataset #:	1
Motif ID:	21
Motif name:	Motif 21
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif

Direction:	Forward
Position number:	4
Number of overlap:	5
Similarity score:	0.01875

Alignment:
CTGCTTTCCMAA
---YTTCC----

Original motif Consensus sequence: CTGCTTTCCMAA



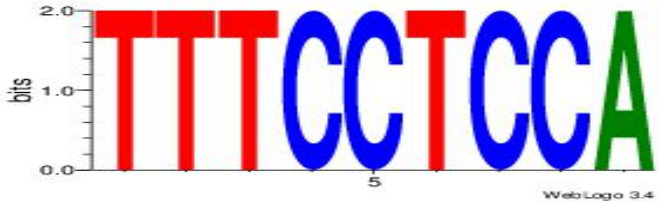
Reverse complement motif Consensus sequence: TTYGGAAAGCAG

Dataset #:	1
Motif ID:	41
Motif name:	Motif 41
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	5
Number of overlap:	5
Similarity score:	0.01875

Alignment:
TTTCCTCCA
YTTCC----

Original motif Consensus sequence: TGGAGGAAA

Reverse complement motif Consensus sequence: TTTCCTCCA



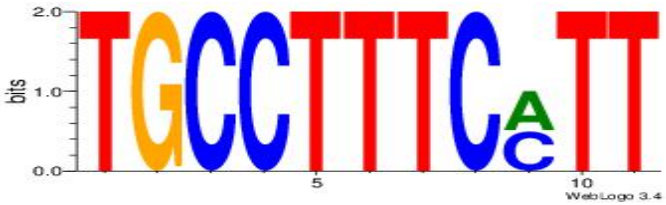
Dataset #:	1
Motif ID:	43
Motif name:	Motif 43
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	5
Number of overlap:	5
Similarity score:	0.04375

Alignment:

```
TGCCTTTCYTT
----YTTCC--
```

Original motif Consensus sequence: AAKGAAAGGCA

Reverse complement motif Consensus sequence: TGCCTTTCYTT



Dataset #:	1
Motif ID:	44
Motif name:	Motif 44
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	5
Similarity score:	0.05625

Alignment:

```
TTCTTYCATT
--YTTCC---
```

Original motif Consensus sequence: AATGKAAGAA

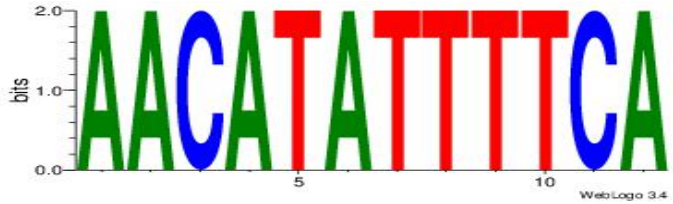
Reverse complement motif Consensus sequence: TTCTTYCATT

Dataset #:	1
Motif ID:	9
Motif name:	Motif 9
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	8
Number of overlap:	5

Similarity score: 0.06875

Alignment:
TGAAAATATGTT
-------GGAAM

Original motif Consensus sequence: AACATATTTTCA



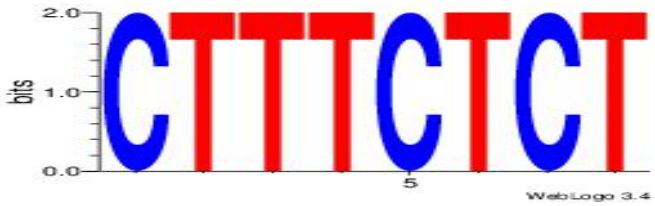
Reverse complement motif Consensus sequence: TGAAAATATGTT

Dataset #: 1
Motif ID: 19
Motif name: Motif 19
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 3
Number of overlap: 5
Similarity score: 0.06875

Alignment:
CTTTCTCT
-YTTCC--

Original motif Consensus sequence: AGAGAAAG

Reverse complement motif Consensus sequence: CTTTCTCT



Dataset #:	1
Motif ID:	28
Motif name:	Motif 28
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	6
Number of overlap:	5
Similarity score:	0.06875

Alignment:

```
ATTTAGTAAA
-----GGAAM
```

Original motif Consensus sequence: ATTTAGTAAA

Reverse complement motif Consensus sequence: TTTACTAAAT

Dataset #:	1
Motif ID:	8

Motif name:	Motif 8
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	7
Number of overlap:	5
Similarity score:	0.06875

Alignment:

```
AAGSATTTTCA
------YTTCC
```

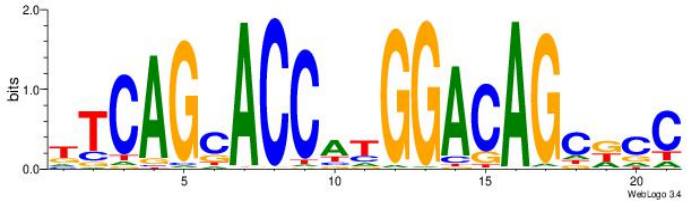
Original motif Consensus sequence: TGAAAATSCTT

Reverse complement motif Consensus sequence: AAGSATTTTCA

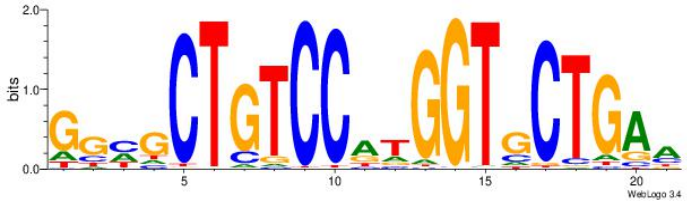
Dataset #:	3
Motif ID:	57
Motif name:	REST
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	6
Number of overlap:	5
Similarity score:	0.0747947

Alignment:
GGYGCTGTCCATGGTGCTGAA
-----YTTCC----------

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA

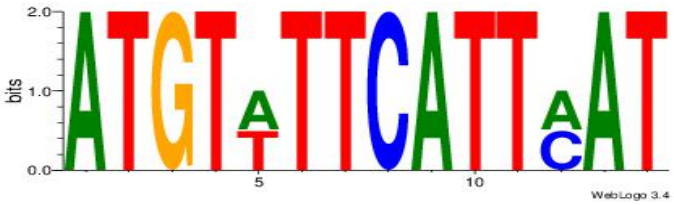


Dataset #:	1
Motif ID:	23
Motif name:	Motif 23
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	5
Number of overlap:	5
Similarity score:	0.075

Alignment:
ATGTWTTCATTMAT
-----YTTCC----

Original motif Consensus sequence: ATGTWTTCATTMAT

Reverse complement motif Consensus sequence: ATYAATGAAWACA



Dataset #: 3 **Motif ID: 61** **Motif name: NR4A2**

Original motif Consensus sequence: AAGGTCAC

Reverse complement motif Consensus sequence: GTGACCTT

Best Matches for Top Significant Motif ID 61 (Highest to Lowest)

Dataset #:	1
Motif ID:	17
Motif name:	Motif 17
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	8
Similarity score:	0.0393171

Alignment:

```
CTTCTGACCTC
GTGACCTT---
```

Original motif Consensus sequence: CTTCTGACCTC

Reverse complement motif Consensus sequence: GAGGTCAGAAG

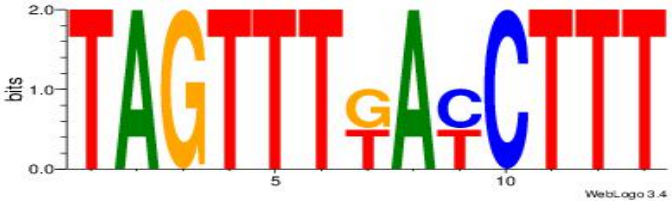
Dataset #:	1
Motif ID:	15
Motif name:	Motif 15
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	8
Similarity score:	0.040519

Alignment:

```
AAAGRTMAAACTA
-AAGGTCAC----
```

Original motif Consensus sequence: AAAGRTMAAACTA

Reverse complement motif Consensus sequence: TAGTTTYAKCTTT



Dataset #:	1
Motif ID:	24
Motif name:	Motif 24
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	8
Similarity score:	0.0539119

Alignment:

```
TTWATGWCTTT
---GTGACCTT
```

Original motif Consensus sequence: AAAGWCATWAA

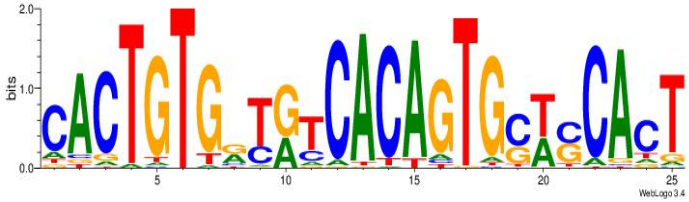
Reverse complement motif Consensus sequence: TTWATGWCTTT

Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	7
Number of overlap:	8

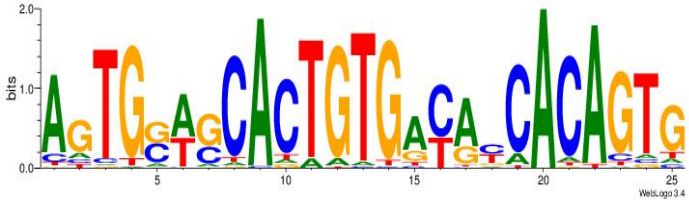
Similarity score: 0.0557243

Alignment:
CACTGTGRTRTCACAGTGSWSCACT
------AAGGTCAC----------

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG

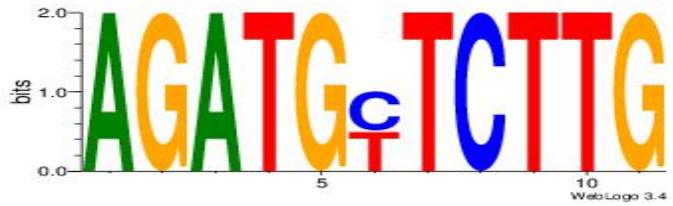


Dataset #: 1
Motif ID: 35
Motif name: Motif 35
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 2
Number of overlap: 8
Similarity score: 0.0566591

Alignment:
AGATGYTCTTG
-GTGACCTT--

Original motif Consensus sequence: AGATGYTCTTG

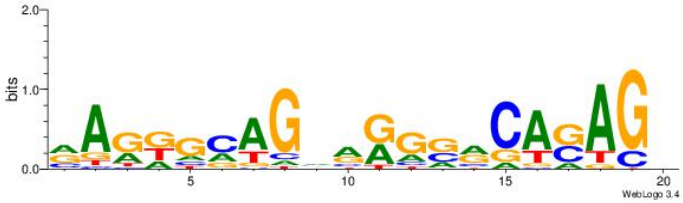
Reverse complement motif Consensus sequence: CAAGAKCATCT



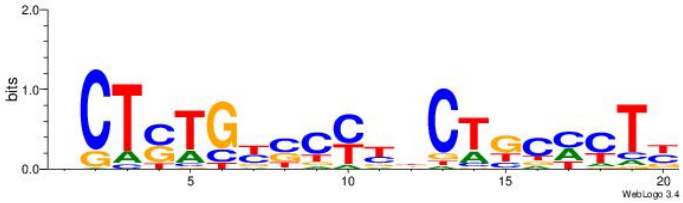
Dataset #: 5
Motif ID: 93
Motif name: TFM12
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 10
Number of overlap: 8
Similarity score: 0.0584971

Alignment:
RAGKGMAGVRRGSRCASAGV
---------AAGGTCAC---

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



Reverse complement motif Consensus sequence:
VCTSTGKSCMKBCTRCYCTK



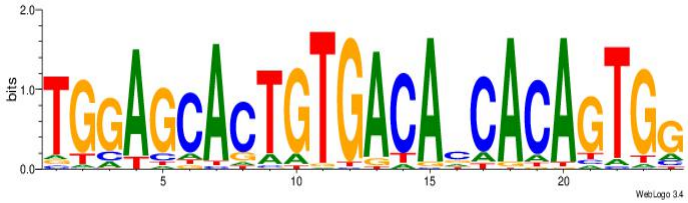
Dataset #: 4

Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	8
Number of overlap:	8
Similarity score:	0.060729

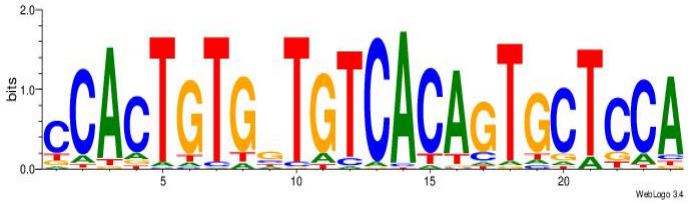
Alignment:

```
CCACTGTGVTGTCACAGTGCTCCA
-------AAGGTCAC---------
```

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

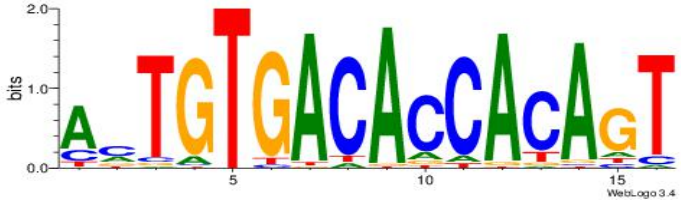


Dataset #:	4
Motif ID:	71
Motif name:	AmTGTGACACCACAGT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	6
Number of overlap:	8

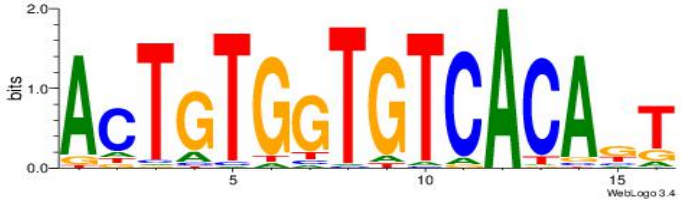
Similarity score: 0.0645146

Alignment:
ACTGTGGTGTCACART
-----AAGGTCAC---

Original motif Consensus sequence: AMTGTGACACCACAGT



Reverse complement motif Consensus sequence: ACTGTGGTGTCACART

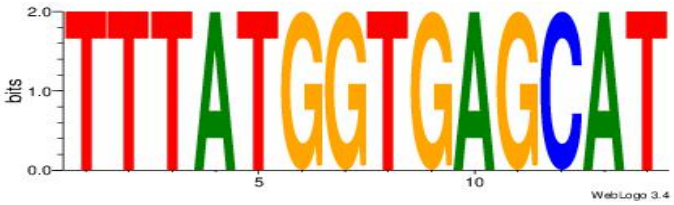


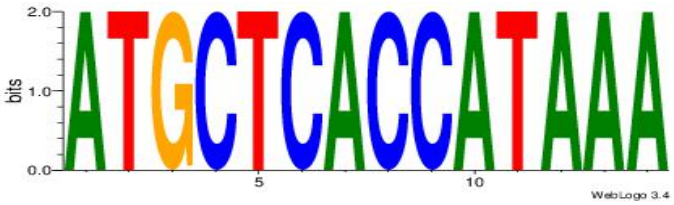
Dataset #:	1
Motif ID:	22
Motif name:	Motif 22
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	7
Number of overlap:	8
Similarity score:	0.0664462

Alignment:
TTTATGGTGAGCAT
GTGACCTT------

Original motif Consensus sequence: TTTATGGTGAGCAT

Reverse complement motif Consensus sequence: ATGCTCACCATAA





Dataset #:	1
Motif ID:	18
Motif name:	Motif 18
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	8
Similarity score:	0.0674765

Alignment:

```
GCTGGACTTTG
-GTGACCTT--
```

Original motif Consensus sequence: CAAAGTCCAGC

Reverse complement motif Consensus sequence: GCTGGACTTTG

Dataset #: 4 Motif ID: 79 Motif name: cCGCGGrCACG

Original motif Consensus sequence: CCGCGGRCACG

Reverse complement motif Consensus sequence: CGTGKCCGCGG

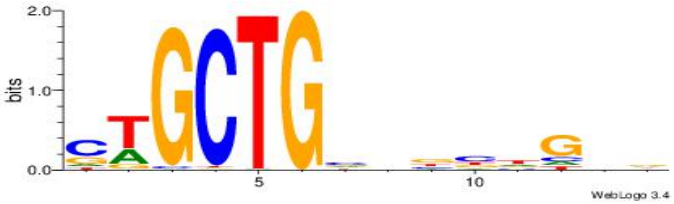
Best Matches for Top Significant Motif ID 79 (Highest to Lowest)

Dataset #:	5
Motif ID:	88
Motif name:	TFF11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	11
Similarity score:	0.0478408

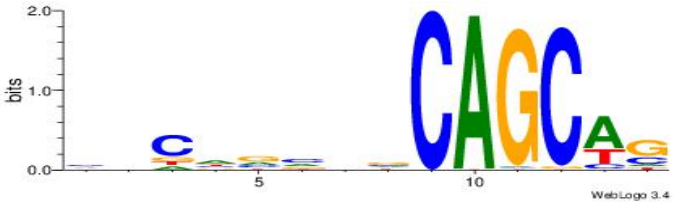
Alignment:

```
HVCDBBDBCAGCAG
---CGTGKCCGCGG
```

Original motif Consensus sequence: CTGCTGBDBBDGBD



Reverse complement motif Consensus sequence: HVCDBBDBCAGCA

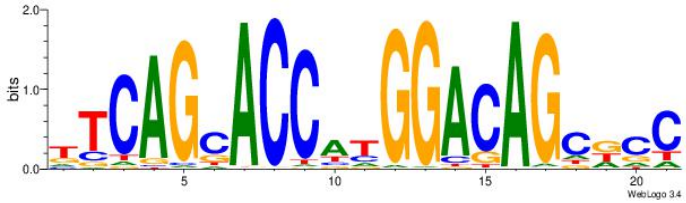


Dataset #:	3
Motif ID:	57
Motif name:	REST
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	4
Number of overlap:	11
Similarity score:	0.0484441

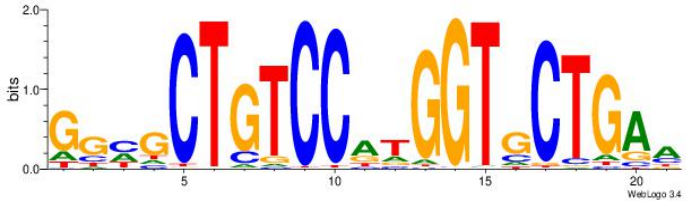
Alignment:

```
TTCAGCACCATGGACAGCKCC
-------CCGCGGRCACG---
```

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA

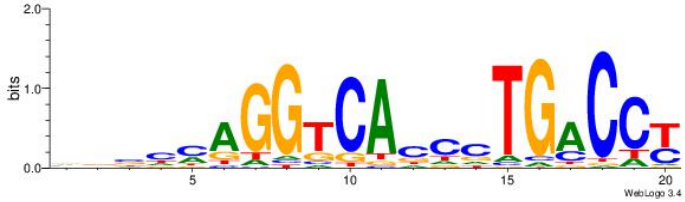


Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3

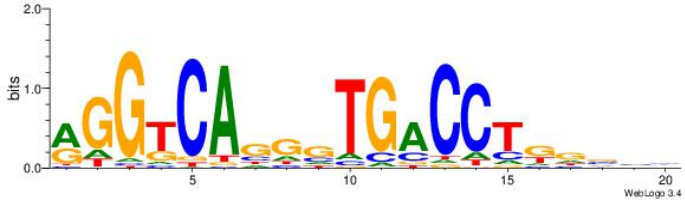
Number of overlap: 11
Similarity score: 0.0486581

Alignment:
MGGTCAGGGTGACCTRDBHV
-------CGTGKCCGCGG--

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



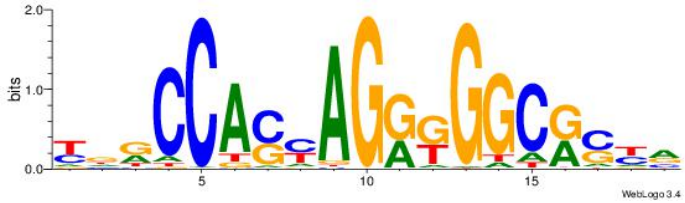
Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV



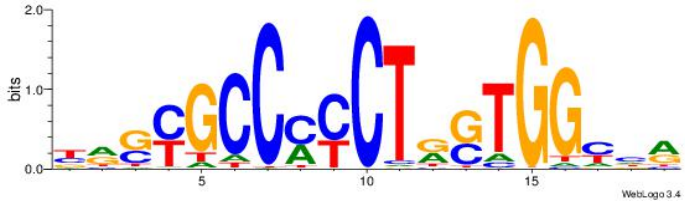
Dataset #: 3
Motif ID: 66
Motif name: CTCF
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 2
Number of overlap: 11
Similarity score: 0.0588663

Alignment:
YDRCCASYAGRKGGCRSYV
-------CCGCGGRCACG-

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM

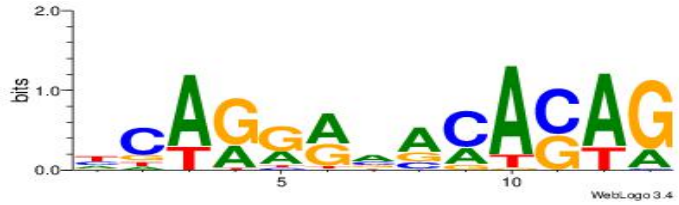


Dataset #:	1
Motif ID:	3
Motif name:	Motif 3
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	11
Similarity score:	0.0597806

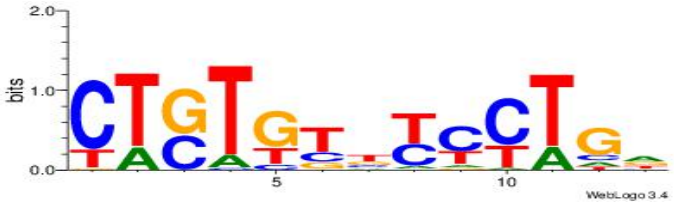
Alignment:

```
HCAGRRVACASAG
-CCGCGGRCACG-
```

Original motif Consensus sequence: HCAGRRVACASAG



Reverse complement motif Consensus sequence: CTSTGTBKMCTGH



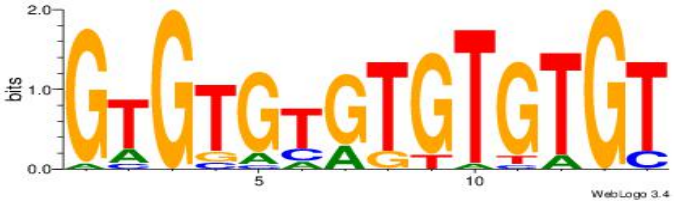
Dataset #:	1
Motif ID:	2
Motif name:	Motif 2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	11
Similarity score:	0.0624268

Alignment:

```
GTGTGTGTGTGTGT
-CGTGKCCGCGG--
```

Original motif Consensus sequence: ACACACACACACAC

Reverse complement motif Consensus sequence: GTGTGTGTGTGTG

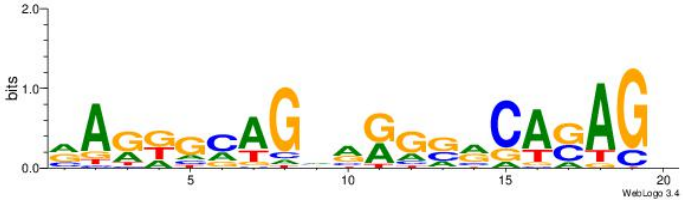


Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	5
Number of overlap:	11

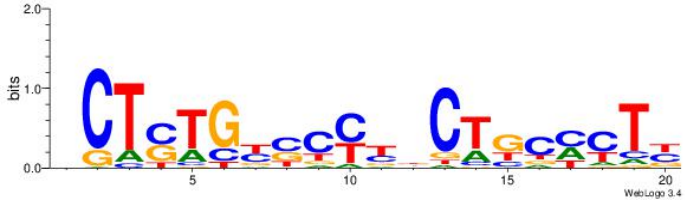
Similarity score: 0.0625015

Alignment:
RAGKGMAGVRRGSRCASAGV
-----CCGCGGRCACG----

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK

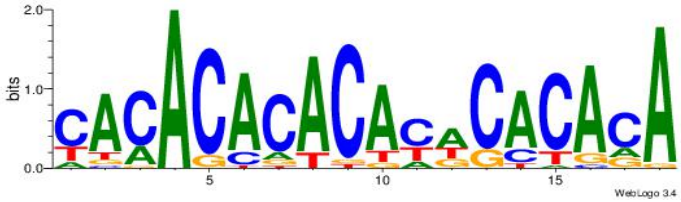


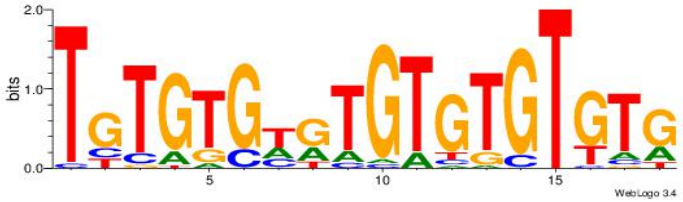
Dataset #: 5
Motif ID: 89
Motif name: TFM1
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 3
Number of overlap: 11
Similarity score: 0.0628056

Alignment:
CACACACACACWCACACA
-----CCGCGGRCACG--

Original motif Consensus sequence: CACACACACACWCACACA

Reverse complement motif Consensus sequence: TGTGTGWGTGTGTGTGTG



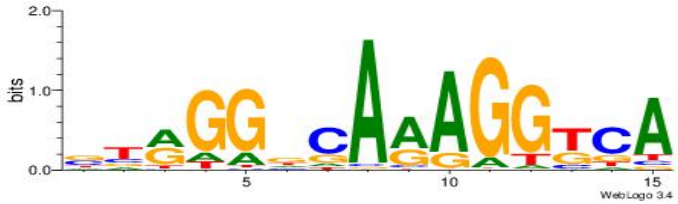


Dataset #:	3
Motif ID:	64
Motif name:	PPARGRXRA
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	11
Similarity score:	0.0629476

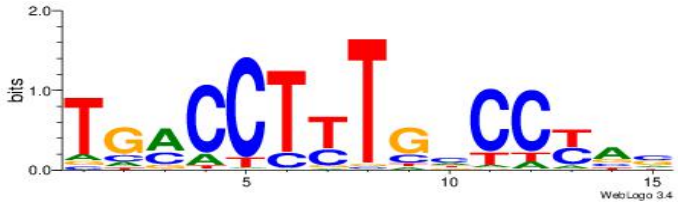
Alignment:

```
TGRCCTKTGHCCKAB
---CGTGKCCGCGG-
```

Original motif Consensus sequence: BTRGGDCARAGGKCA



Reverse complement motif Consensus sequence: TGRCCTKTGHCCK



Dataset #:	5
Motif ID:	92

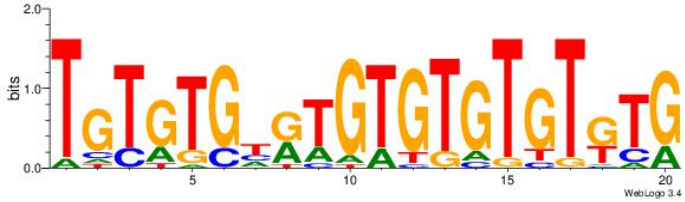
Motif name:	TFM11
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	8
Number of overlap:	11
Similarity score:	0.0634175

Alignment:

```
CAMACACACACAYDCACACA
-------CCGCGGRCACG--
```

Original motif Consensus sequence: CAMACACACACAYDCACACA

Reverse complement motif Consensus sequence: TGTGTGDKTGTGTGTGTRTG



Significant Motifs - Global and Local Matching (Highest to Lowest)

Dataset #: 3 Motif ID: 55 Motif name: ZEB1

Original motif Consensus sequence: CACCTD

Reverse complement motif Consensus sequence: HAGGTG

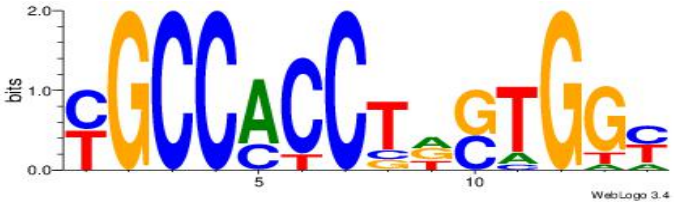
Best Matches for Significant Motif ID 55 (Highest to Lowest)

Dataset #:	2
Motif ID:	47
Motif name:	Motif 47
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	6
Number of overlap:	6
Similarity score:	0

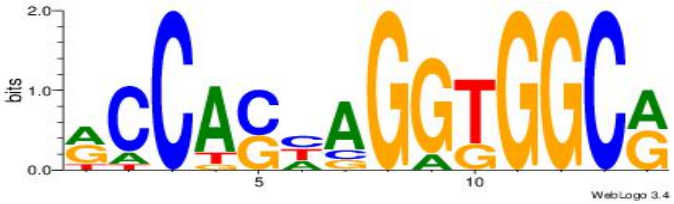
Alignment:

```
YGCCACCTDSTGGY
---CACCTD-----
```

Original motif Consensus sequence: YGCCACCTDSTGGY



Reverse complement motif Consensus sequence: KCCASDAGGTGGC



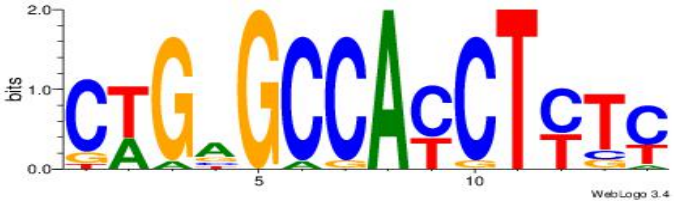
Dataset #: 1

Motif ID:	5
Motif name:	Motif 5
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	6
Similarity score:	0.00902841

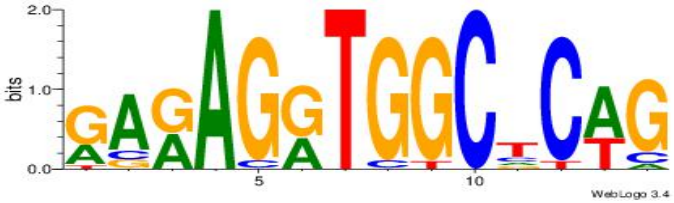
Alignment:

```
CWGAGCCAYCTYTC
------CACCTD--
```

Original motif Consensus sequence: CWGAGCCAYCTYTC



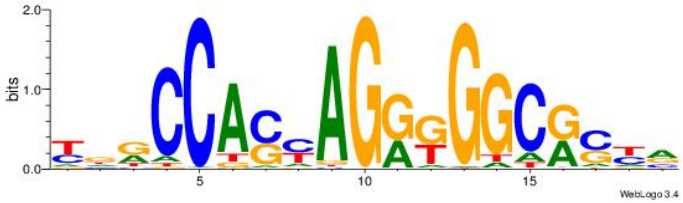
Reverse complement motif Consensus sequence: GAKAGKTGGCTCW



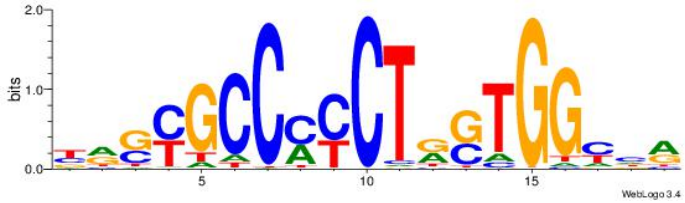
Dataset #:	3
Motif ID:	66
Motif name:	CTCF
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	8
Number of overlap:	6
Similarity score:	0.0118423

Alignment:
YDRCCASYAGRKGGCRSYV
-------HAGGTG------

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM



Dataset #:	3
Motif ID:	62
Motif name:	RORA_1
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	6
Similarity score:	0.0187312

Alignment:
TGACCTDVWT
-CACCTD---

Original motif Consensus sequence: AWVDAGGTCA

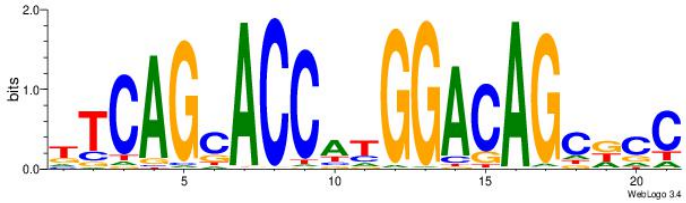
Reverse complement motif Consensus sequence: TGACCTDVWT

Dataset #:	3
Motif ID:	57
Motif name:	REST
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	6
Number of overlap:	6
Similarity score:	0.0189156

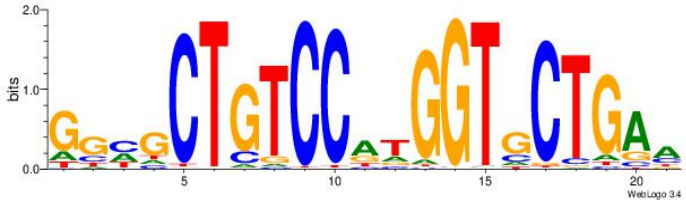
Alignment:

```
GGYGCTGTCCATGGTGCTGAA
----------HAGGTG-----
```

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA



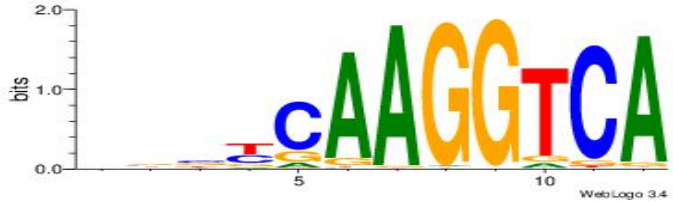
Dataset #:	3

Motif ID:	54
Motif name:	Esrrb
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	6
Similarity score:	0.0248883

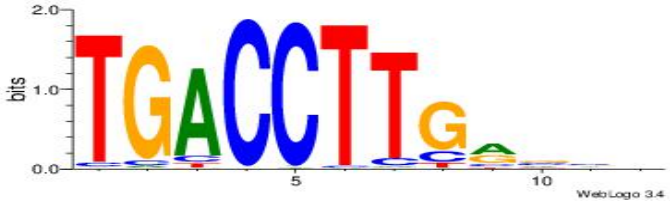
Alignment:

```
VBBYCAAGGTCA
-HAGGTG-----
```

Original motif Consensus sequence: VBBYCAAGGTCA



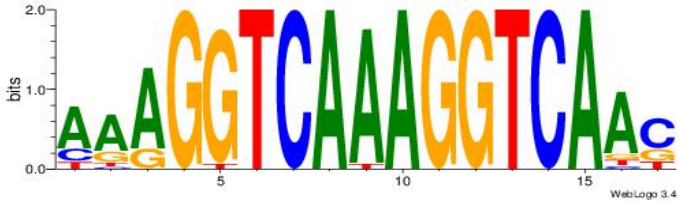
Reverse complement motif Consensus sequence: TGACCTTGMBBB



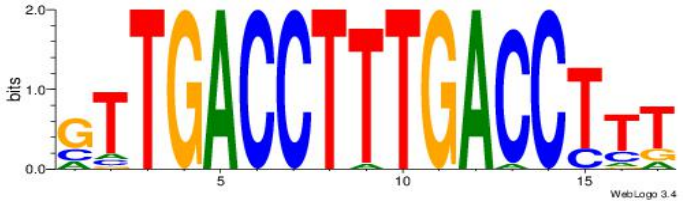
Dataset #:	3
Motif ID:	60
Motif name:	NR1H2RXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	6
Similarity score:	0.0278775

Alignment:
GTTGACCTTTGACCTTT
----------CACCTD-

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC



Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT

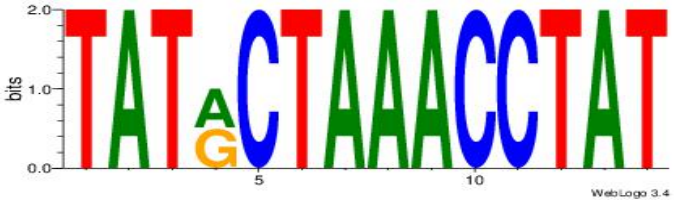


Dataset #:	1
Motif ID:	46
Motif name:	Motif 46
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	8
Number of overlap:	6
Similarity score:	0.0285279

Alignment:
TATKCTAAACCTAT
-CACCTD-------

Original motif Consensus sequence: ATAGGTTTAGYATA

Reverse complement motif Consensus sequence: TATKCTAAACCTAT

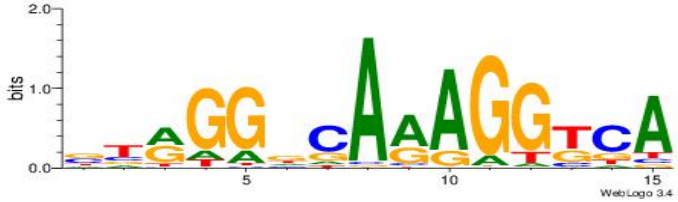


Dataset #:	3
Motif ID:	64
Motif name:	PPARGRXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	9
Number of overlap:	6
Similarity score:	0.0310859

Alignment:

```
TGRCCTKTGHCCKAB
-CACCTD--------
```

Original motif Consensus sequence: BTRGGDCARAGGKCA



Reverse complement motif Consensus sequence: TGRCCTKTGHCCK

Dataset #:	3
Motif ID:	61

Motif name:	NR4A2
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	6
Similarity score:	0.0334919

Alignment:

```
GTGACCTT
--CACCTD
```

Original motif Consensus sequence: AAGGTCAC

Reverse complement motif Consensus sequence: GTGACCTT

Dataset #: 5 Motif ID: 84 Motif name: TFW3

Original motif Consensus sequence: GCACTG

Reverse complement motif Consensus sequence: CAGTGC

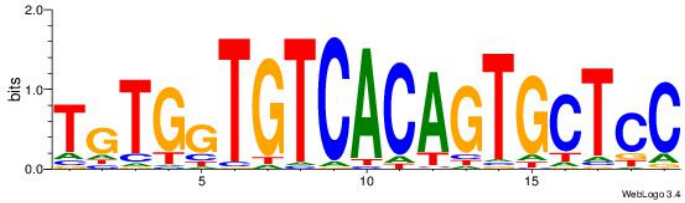
Best Matches for Significant Motif ID 84 (Highest to Lowest)

Dataset #:	4
Motif ID:	67
Motif name:	TgTGgTGTCACAGTGCTCC
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	11
Number of overlap:	6
Similarity score:	0

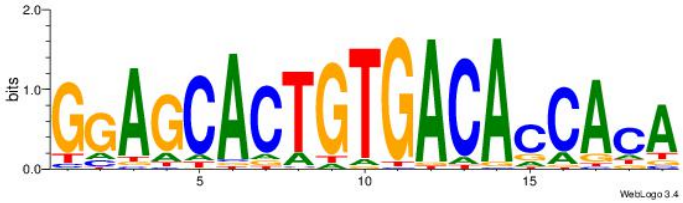
Alignment:

```
GGAGCACTGTGACACCACA
----------GCACTG---
```

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA

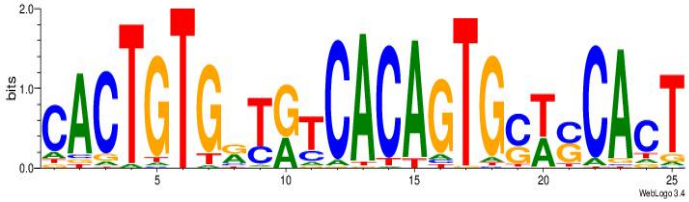


Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	7

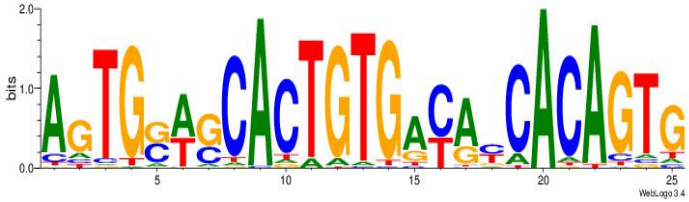
Number of overlap: 6
Similarity score: 0.000794289

Alignment:
AGTGSWSCACTGTGAMAMCACAGTG
----------GCACTG------

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



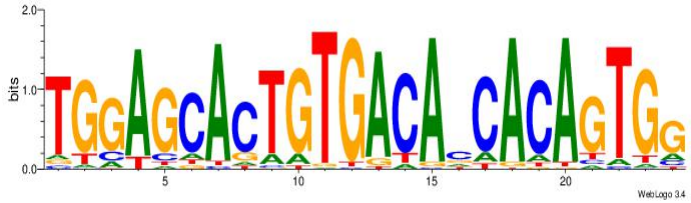
Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG



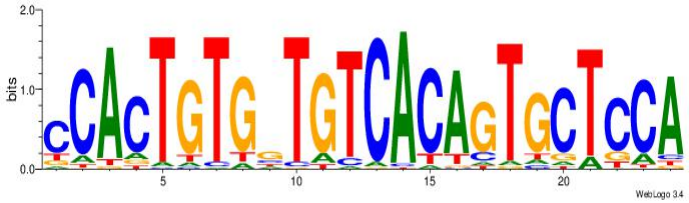
Dataset #: 4
Motif ID: 73
Motif name: TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 5
Number of overlap: 6
Similarity score: 0.00482436

Alignment:
CCACTGTGVTGTCACAGTGCTCCA
----------CAGTGC----

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

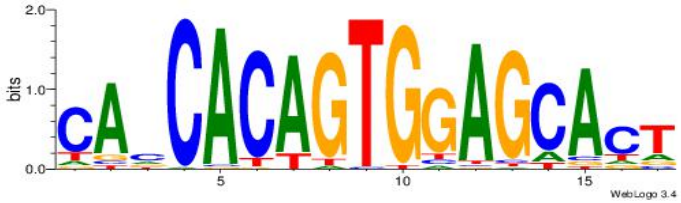


Dataset #:	4
Motif ID:	76
Motif name:	CAcCACAGTGGAGCAct
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	7
Number of overlap:	6
Similarity score:	0.0201914

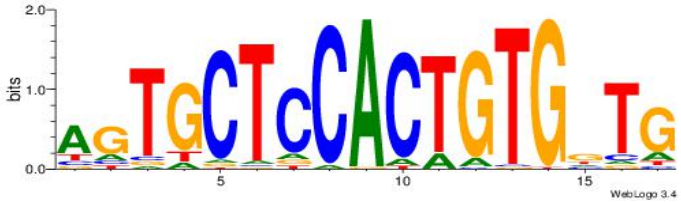
Alignment:

```
CAHCACAGTGGAGCACT
------CAGTGC-----
```

Original motif Consensus sequence: CAHCACAGTGGAGCACT



Reverse complement motif Consensus sequence: AGTGCTCCACTGTGDTG

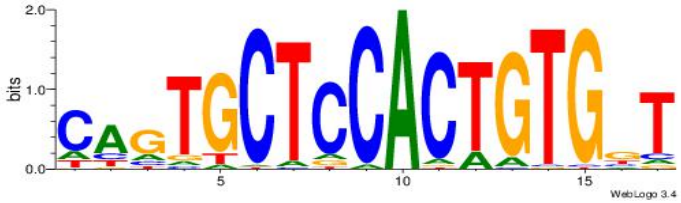


Dataset #:	4
Motif ID:	70
Motif name:	CagTGCTCCACTGTGgT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	8
Number of overlap:	6
Similarity score:	0.0205497

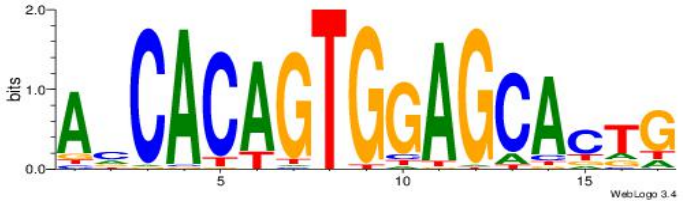
Alignment:

```
ABCACAGTGGAGCACTG
----CAGTGC-------
```

Original motif Consensus sequence: CAGTGCTCCACTGTGBT



Reverse complement motif Consensus sequence: ABCACAGTGGAGCACTG

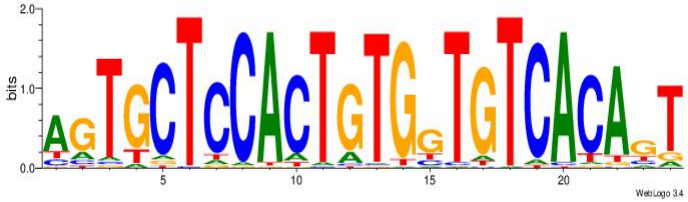


Dataset #:	4
Motif ID:	77
Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	13

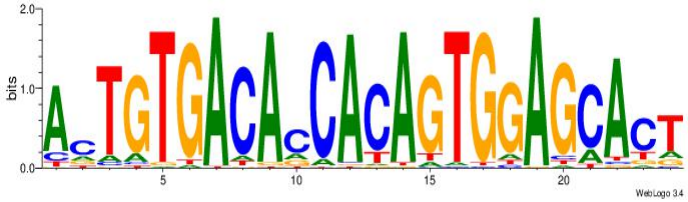
Number of overlap: 6
Similarity score: 0.0290883

Alignment:
AGTGCTCCACTGTGGTGTCACAGT
------GCACTG----------

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



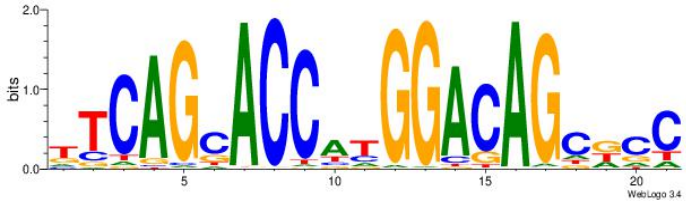
Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT



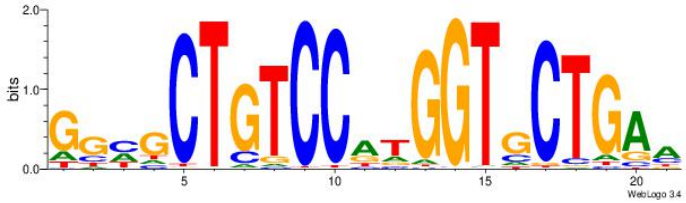
Dataset #: 3
Motif ID: 57
Motif name: REST
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Backward
Position number: 15
Number of overlap: 6
Similarity score: 0.039883

Alignment:
TTCAGCACCATGGACAGCKCC
-CAGTGC--------------

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA

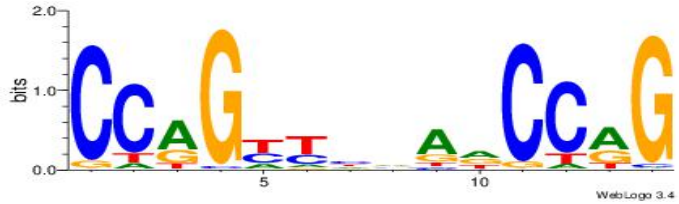


Dataset #:	3
Motif ID:	65
Motif name:	Tcfcp2l1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	8
Number of overlap:	6
Similarity score:	0.0447224

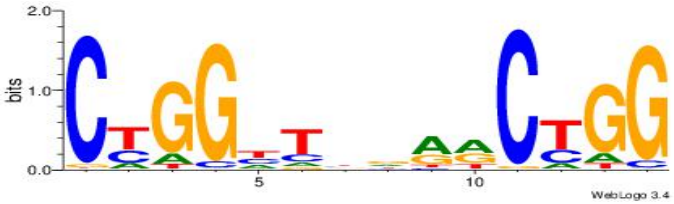
Alignment:

```
CCAGYYHVADCCRG
-------CAGTGC-
```

Original motif Consensus sequence: CCAGYYHVADCCRG



Reverse complement motif Consensus sequence: CKGGDTBDMMCT

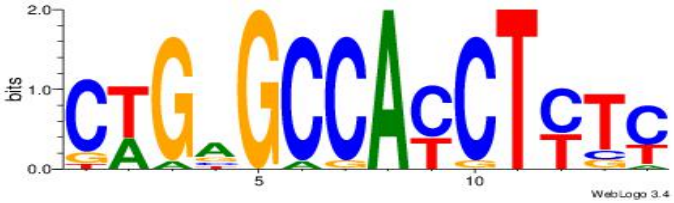


Dataset #:	1
Motif ID:	5
Motif name:	Motif 5
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	9
Number of overlap:	6
Similarity score:	0.0459818

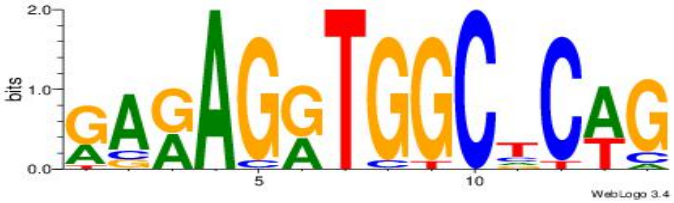
Alignment:

```
GAKAGKTGGCTCWG
GCACTG-------
```

Original motif Consensus sequence: CWGAGCCAYCTYTC



Reverse complement motif Consensus sequence: GAKAGKTGGCTCW



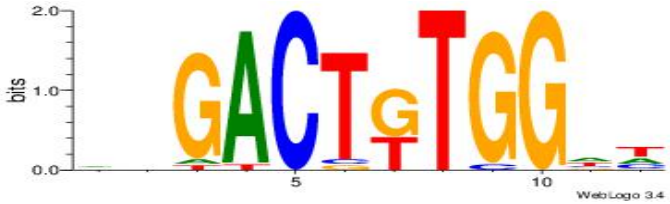
Dataset #:	4
Motif ID:	75
Motif name:	wwCCAmAGTCmt
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	6
Number of overlap:	6

Similarity score: 0.0587933

Alignment:
VDGACTRTGGDD
-----GCACTG-

Original motif Consensus sequence: DDCCAMAGTCHB

Reverse complement motif Consensus sequence: VDGACTRTGGDD



Dataset #: 5 Motif ID: 85 Motif name: TFW1

Original motif Consensus sequence: TTGCGCAA

Reverse complement motif Consensus sequence: TTGCGCAA

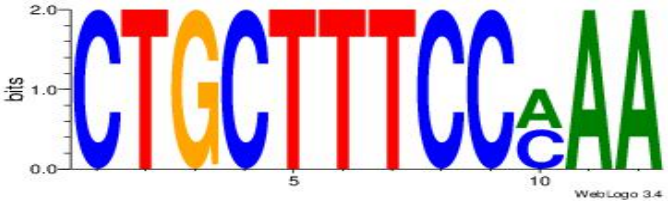
Best Matches for Significant Motif ID 85 (Highest to Lowest)

Dataset #:	1
Motif ID:	21
Motif name:	Motif 21
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward

Position number: 1
Number of overlap: 8
Similarity score: 0.0195312

Alignment:
TTYGGAAAGCAG
----TTGCGCAA

Original motif Consensus sequence: CTGCTTTCCMAA



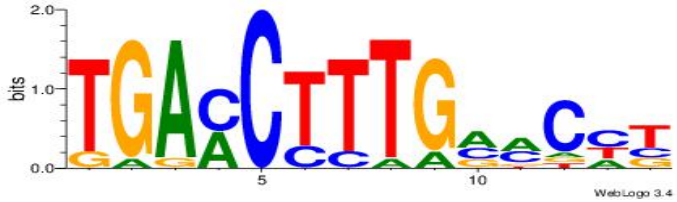
Reverse complement motif Consensus sequence: TTYGGAAAGCAG

Dataset #: 3
Motif ID: 52
Motif name: NR2F1
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 1
Number of overlap: 8
Similarity score: 0.0276442

Alignment:
AKGYYCAAAGRTCA
TTGCGCAA------

Original motif Consensus sequence: TGAMCTTTGMMCYT

Reverse complement motif Consensus sequence: AKGYYCAAAGRTCA

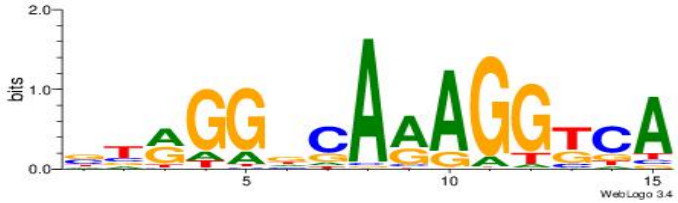


Dataset #:	3
Motif ID:	64
Motif name:	PPARGRXRA
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	7
Number of overlap:	8
Similarity score:	0.0277567

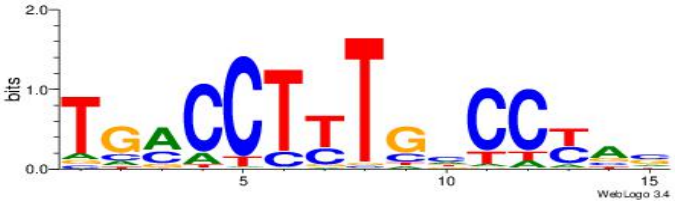
Alignment:

```
BTRGGDCARAGGKCA
------TTGCGCAA-
```

Original motif Consensus sequence: BTRGGDCARAGGKCA



Reverse complement motif Consensus sequence: TGRCCTKTGHCCK



Dataset #:	1

Motif ID:	28
Motif name:	Motif 28
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	8
Similarity score:	0.0328125

Alignment:

```
TTTACTAAAT
-TTGCGCAA-
```

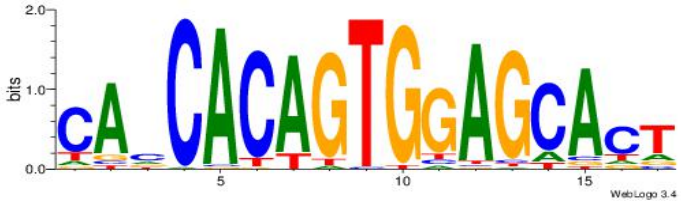
Original motif Consensus sequence: ATTTAGTAAA

Reverse complement motif Consensus sequence: TTTACTAAAT

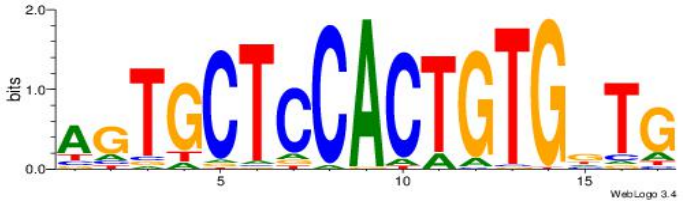
Dataset #:	4
Motif ID:	76
Motif name:	CAcCACAGTGGAGCAct
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	8
Similarity score:	0.0336914

Alignment:
CAHCACAGTGGAGCACT
-TTGCGCAA--------

Original motif Consensus sequence: CAHCACAGTGGAGCACT



Reverse complement motif Consensus sequence: AGTGCTCCACTGTGDTG

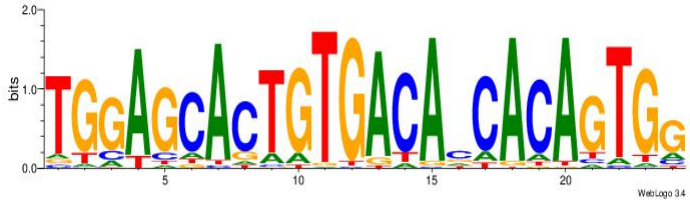


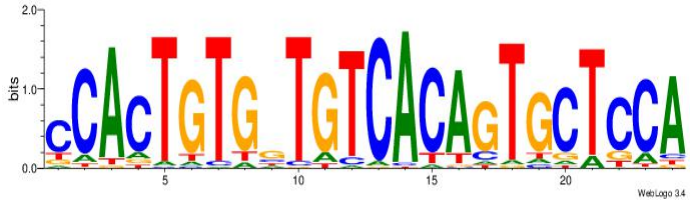
Dataset #:	4
Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	17
Number of overlap:	8
Similarity score:	0.0338471

Alignment:
TGGAGCACTGTGACAVCACAGTGG
TTGCGCAA----------

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG

Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

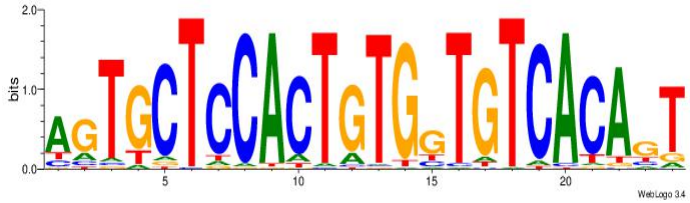




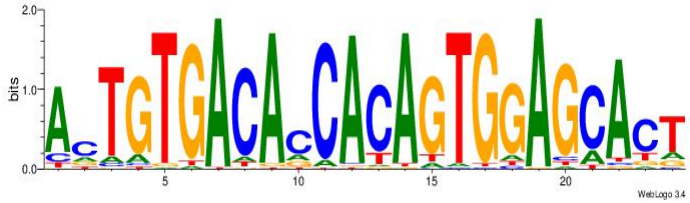
Dataset #: 4
Motif ID: 77
Motif name: AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 16
Number of overlap: 8
Similarity score: 0.034375

Alignment:
AGTGCTCCACTGTGGTGTCACAGT
---------------TTGCGCAA-

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT



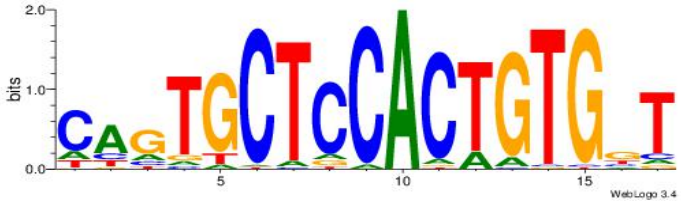
Dataset #: 4

Motif ID:	70
Motif name:	CagTGCTCCACTGTGgT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	8
Similarity score:	0.0354167

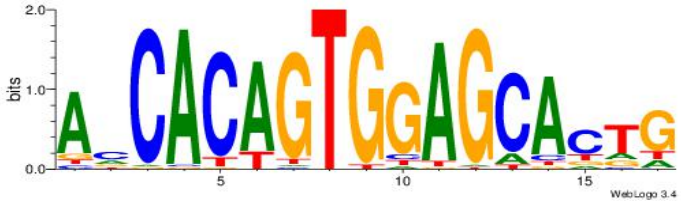
Alignment:

```
CAGTGCTCCACTGTGBT
-------TTGCGCAA--
```

Original motif Consensus sequence: CAGTGCTCCACTGTGBT



Reverse complement motif Consensus sequence: ABCACAGTGGAGCACTG

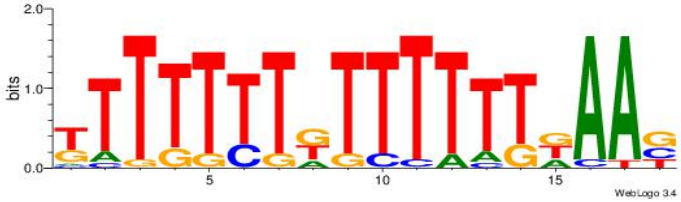


Dataset #:	5
Motif ID:	91
Motif name:	TFM3
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	8

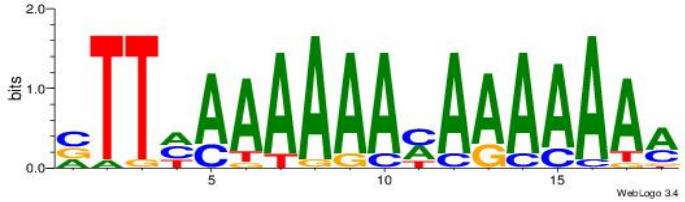
Similarity score: 0.0359375

Alignment:
KTTTTTTKTTTTTTDAAB
---------TTGCGCAA-

Original motif Consensus sequence: KTTTTTTKTTTTTTDAAB



Reverse complement motif Consensus sequence: BTTHAAAAAAYAAAAAAR

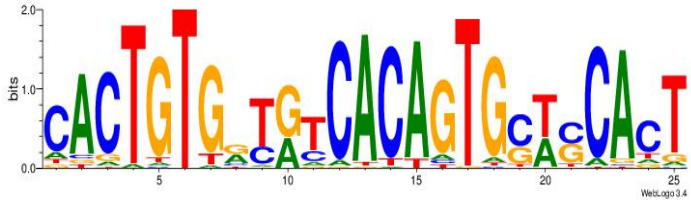


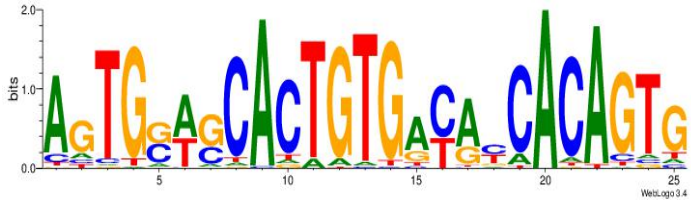
Dataset #: 4
Motif ID: 72
Motif name: CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 3
Number of overlap: 8
Similarity score: 0.0407242

Alignment:
CACTGTGRTRTCACAGTGSWSCACT
---------------TTGCGCAA--

Original motif Consensus sequence: CACTGTGRTRTCACAGTGSWSCACT

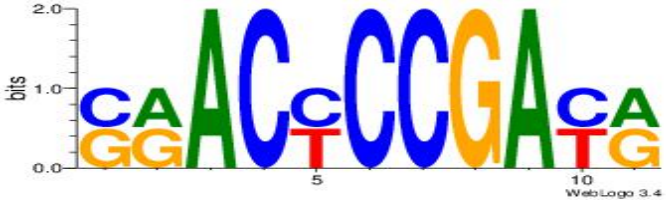
Reverse complement motif Consensus sequence: AGTGSWSCACTGTGAMAMCACAGTG





Dataset #: 4 **Motif ID: 83** **Motif name: srACyCCGAyr**

Original motif Consensus sequence: SRACYCCGAYR



Reverse complement motif Consensus sequence: KKTCGGKGTKS

Best Matches for Significant Motif ID 83 (Highest to Lowest)

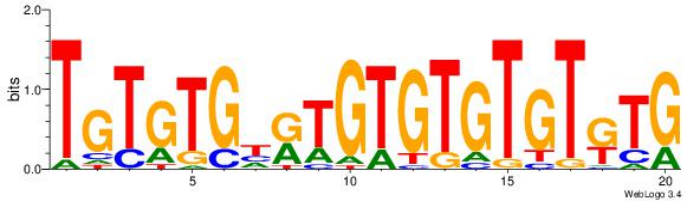
Dataset #:	5
Motif ID:	92
Motif name:	TFM11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	8
Number of overlap:	11
Similarity score:	0.0337509

Alignment:

```
TGTGTGDKTGTGTGTGTRTG
--KKTCGGKGTKS-------
```

Original motif Consensus sequence: CAMACACACACAYDCACACA

Reverse complement motif Consensus sequence: TGTGTGDKTGTGTGTGTRTG

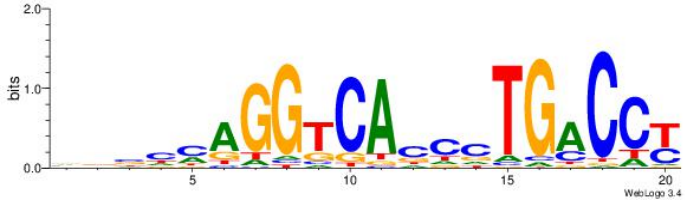


Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	11
Similarity score:	0.0342809

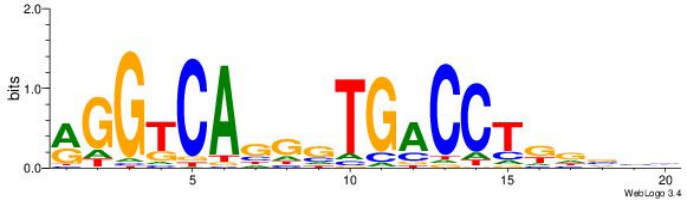
Alignment:

```
MGGTCAGGGTGACCTRDBHV
-KKTCGGKGTKS--------
```

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

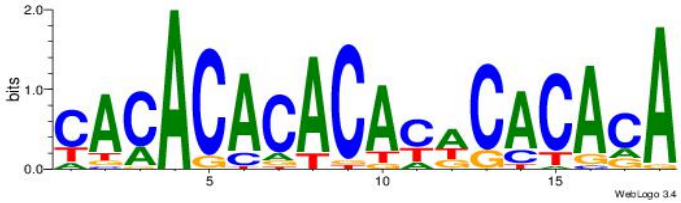


Dataset #:	5
Motif ID:	89
Motif name:	TFM1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	7
Number of overlap:	11
Similarity score:	0.0348124

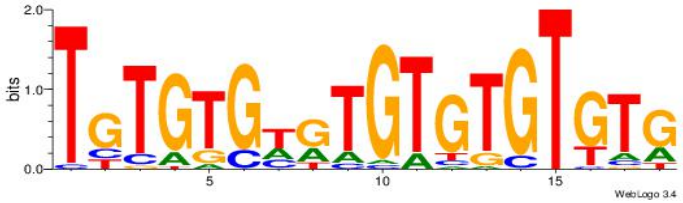
Alignment:

```
TGTGTGWGTGTGTGTGTG
------KKTCGGKGTKS-
```

Original motif Consensus sequence: CACACACACACWCACACA



Reverse complement motif Consensus sequence: TGTGTGWGTGTGTGTGTG

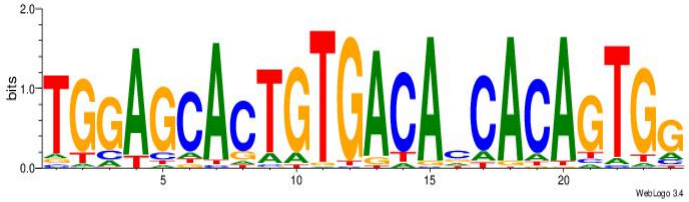


Dataset #:	4
Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	5

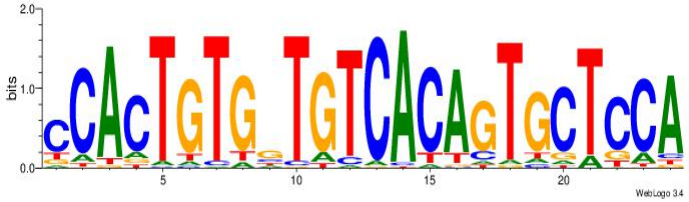
Number of overlap: 11
Similarity score: 0.0372475

Alignment:
CCACTGTGVTGTCACAGTGCTCCA
---------KKTCGGKGTKS----

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



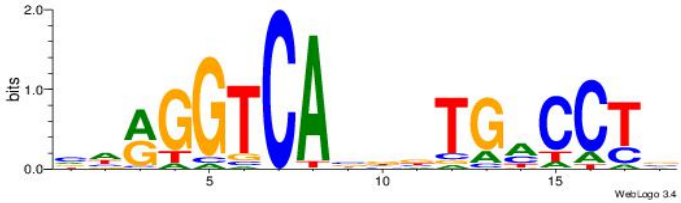
Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA



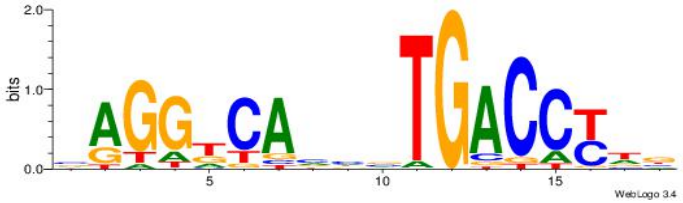
Dataset #: 3
Motif ID: 59
Motif name: ESR2
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 4
Number of overlap: 11
Similarity score: 0.0379796

Alignment:
BAGGYCABHBTGACCKHV
---SRACYCCGAYR----

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB



Reverse complement motif Consensus sequence: BAGGYCABHBTGACCKHV

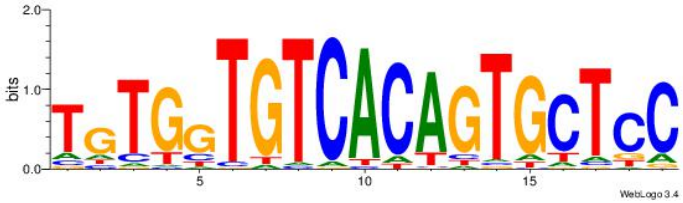


Dataset #:	4
Motif ID:	67
Motif name:	TgTGgTGTCACAGTGCTCC
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	6
Number of overlap:	11
Similarity score:	0.0381944

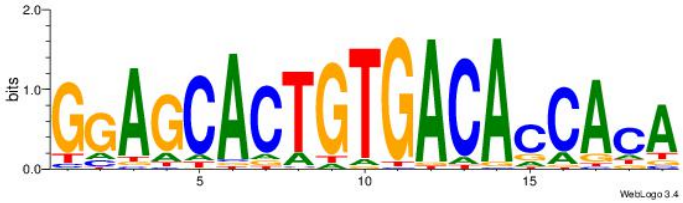
Alignment:

```
GGAGCACTGTGACACCACA
-----SRACYCCGAYR---
```

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA

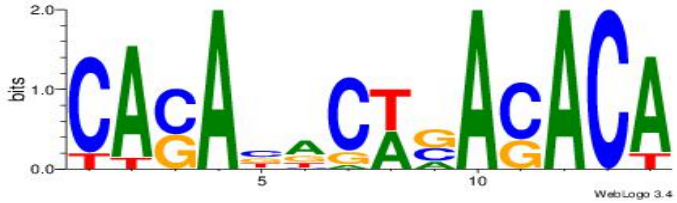


Dataset #:	1
Motif ID:	6
Motif name:	Motif 6
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	11
Similarity score:	0.039412

Alignment:

```
TGTGTSWGTBTSTG
--KKTCGGKGTKS-
```

Original motif Consensus sequence: CASABACWSACACA



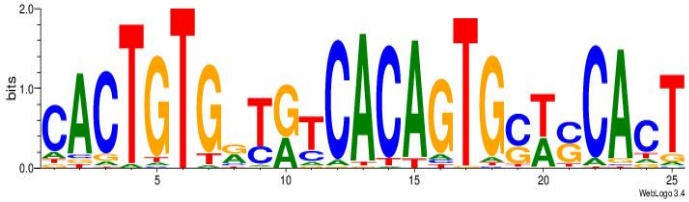
Reverse complement motif Consensus sequence: TGTGTSWGTBTST

Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	7
Number of overlap:	11

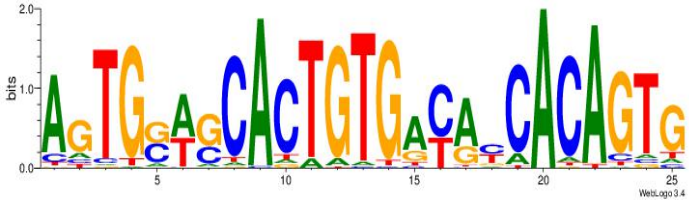
Similarity score: 0.0397727

Alignment:
AGTGSWSCACTGTGAMAMCACAGTG
--------SRACYCCGAYR------

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG

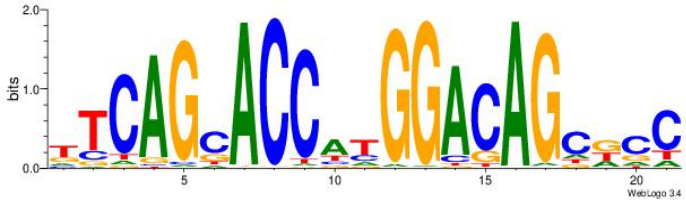


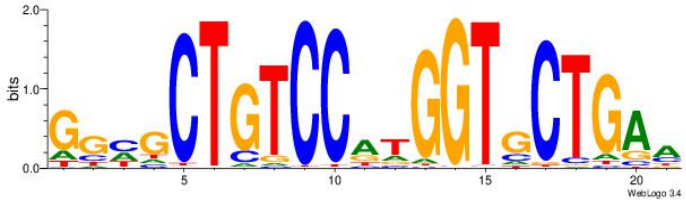
Dataset #: 3
Motif ID: 57
Motif name: REST
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 5
Number of overlap: 11
Similarity score: 0.0402801

Alignment:
GGYGCTGTCCATGGTGCTGAA
------KKTCGGKGTKS----

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC

Reverse complement motif Consensus sequence:
GGYGCTGTCCATGGTGCTGAA





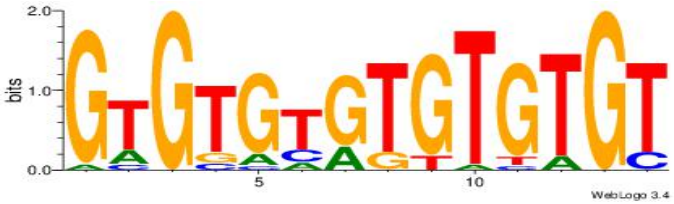
Dataset #:	1
Motif ID:	2
Motif name:	Motif 2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	11
Similarity score:	0.0438762

Alignment:

```
GTGTGTGTGTGTGT
-KKTCGGKGTKS--
```

Original motif Consensus sequence: ACACACACACACAC

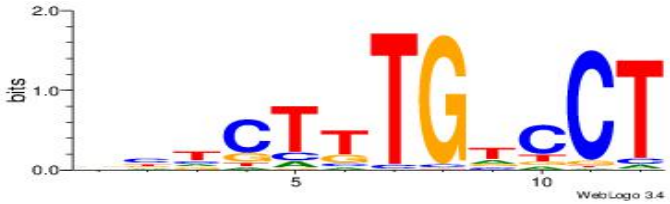
Reverse complement motif Consensus sequence: GTGTGTGTGTGTG



Dataset #: 5 Motif ID: 87 Motif name: TFF1

Original motif Consensus sequence: AGGACAAAGAVV

Reverse complement motif Consensus sequence: VVTCTTTGTCCT



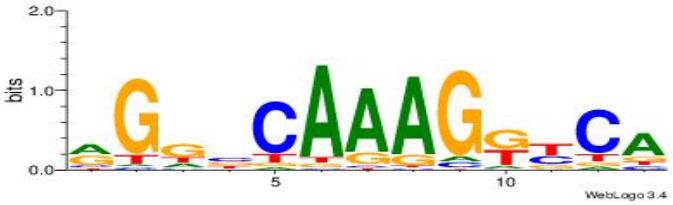
Best Matches for Significant Motif ID 87 (Highest to Lowest)

Dataset #:	3
Motif ID:	51
Motif name:	HNF4A
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	12
Similarity score:	0.0111472

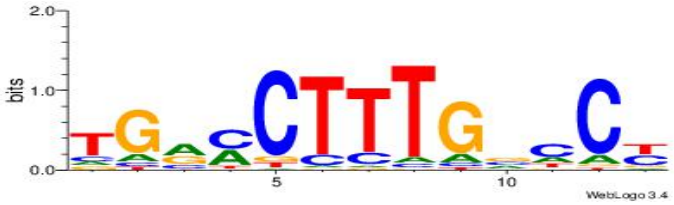
Alignment:

```
TGMYCTTTGBCCK
-VVTCTTTGTCCT
```

Original motif Consensus sequence: RGGBCAAAGKYCA



Reverse complement motif Consensus sequence: TGMYCTTTGBCCK

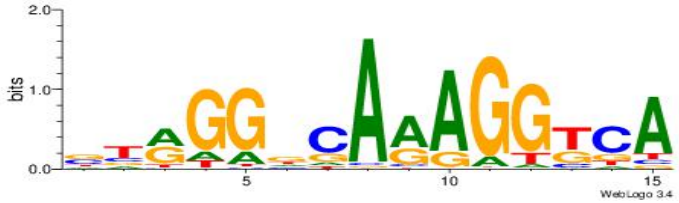


Dataset #:	3
Motif ID:	64
Motif name:	PPARGRXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	12
Similarity score:	0.0210867

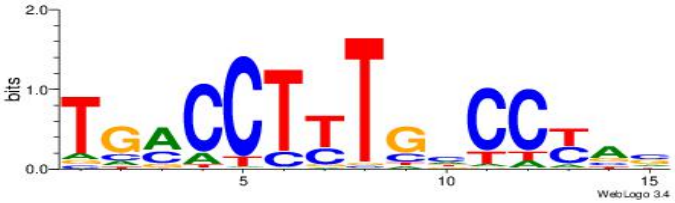
Alignment:

```
BTRGGDCARAGGKCA
--AGGACAAAGAVV-
```

Original motif Consensus sequence: BTRGGDCARAGGKCA



Reverse complement motif Consensus sequence: TGRCCTKTGHCCK

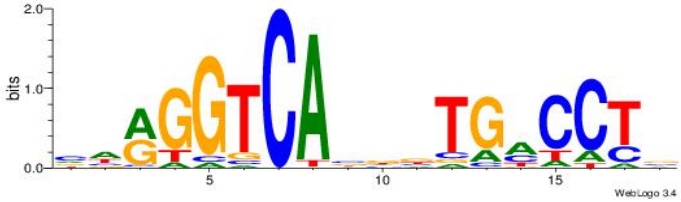


Dataset #:	3
Motif ID:	59
Motif name:	ESR2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	5
Number of overlap:	12

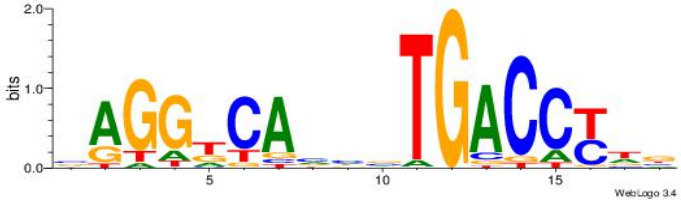
Similarity score: 0.0351633

Alignment:
BAGGYCABHBTGACCKHV
----VVTCTTTGTCCT--

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB



Reverse complement motif Consensus sequence:
BAGGYCABHBTGACCKHV

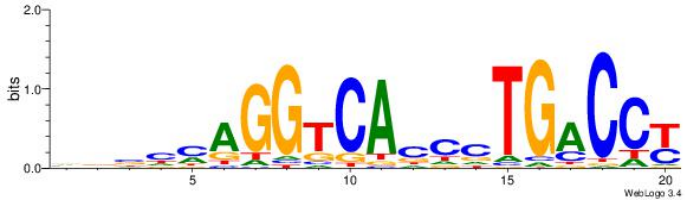


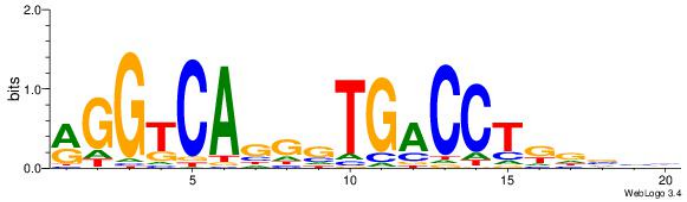
Dataset #: 3
Motif ID: 53
Motif name: ESR1
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Backward
Position number: 9
Number of overlap: 12
Similarity score: 0.039773

Alignment:
VDBHMAGGTCACCCTGACCY
VVTCTTTGTCCT--------

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY

Reverse complement motif Consensus sequence:
MGGTCAGGGTGACCTRDBHV



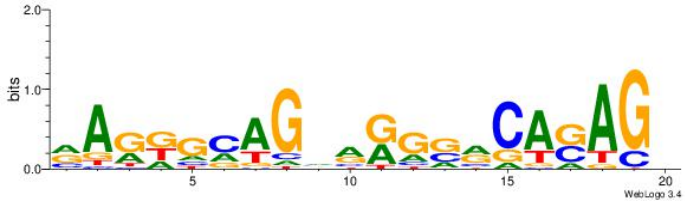


Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	8
Number of overlap:	12
Similarity score:	0.0408272

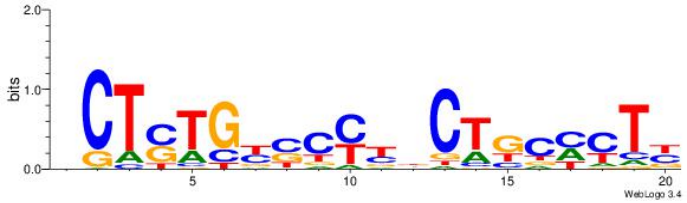
Alignment:

```
RAGKGMAGVRRGSRCASAGV
-AGGACAAAGAVV-------
```

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK



Dataset #:	3

Motif ID:	52
Motif name:	NR2F1
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	12
Similarity score:	0.0472374

Alignment:

```
AKGYYCAAAGRTCA
-AGGACAAAGAVV-
```

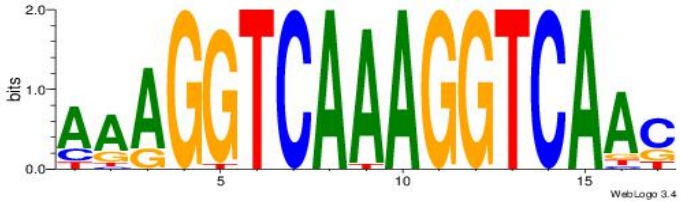
Original motif Consensus sequence: TGAMCTTTGMMCYT

Reverse complement motif Consensus sequence: AKGYYCAAAGRTCA

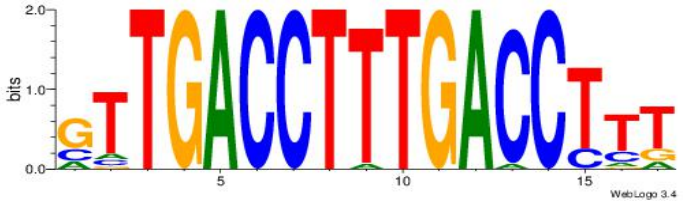
Dataset #:	3
Motif ID:	60
Motif name:	NR1H2RXRA
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	12
Similarity score:	0.0472884

Alignment:
GTTGACCTTTGACCTTT
---VVTCTTTGTCCT--

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC



Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT

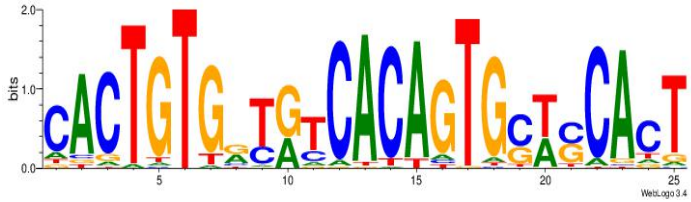


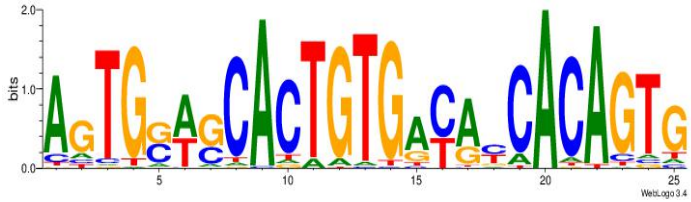
Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	7
Number of overlap:	12
Similarity score:	0.0530556

Alignment:
CACTGTGRTRTCACAGTGSWSCACT
-------AGGACAAAGAVV------

Original motif Consensus sequence: CACTGTGRTRTCACAGTGSWSCACT

Reverse complement motif Consensus sequence: AGTGSWSCACTGTGAMAMCACAGTG

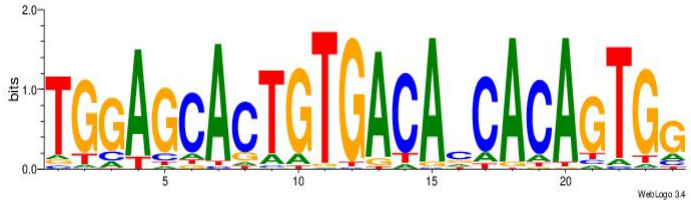




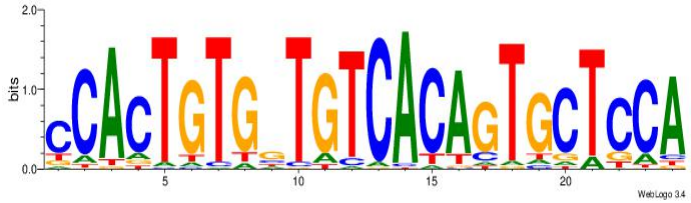
Dataset #: 4
Motif ID: 73
Motif name: TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 13
Number of overlap: 12
Similarity score: 0.0539204

Alignment:
```
TGGAGCACTGTGACAVCACAGTGG
------------AGGACAAAGAVV
```

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA



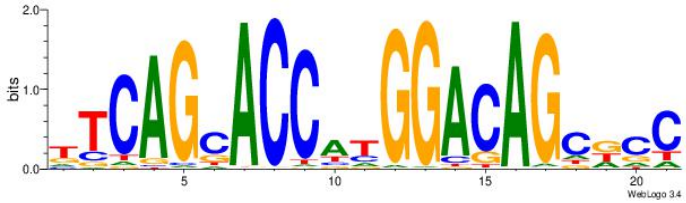
Dataset #: 3

Motif ID:	57
Motif name:	REST
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	4
Number of overlap:	12
Similarity score:	0.0558379

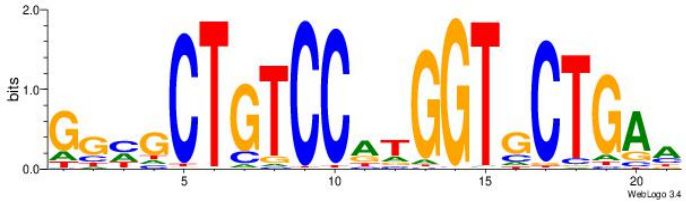
Alignment:

```
TTCAGCACCATGGACAGCKCC
---AGGACAAAGAVV------
```

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC

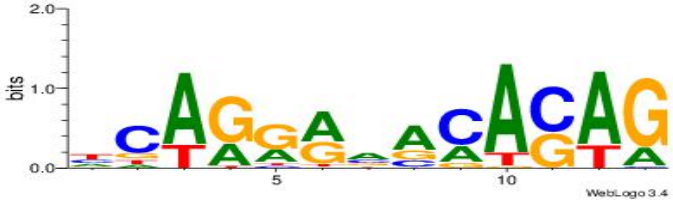


Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA

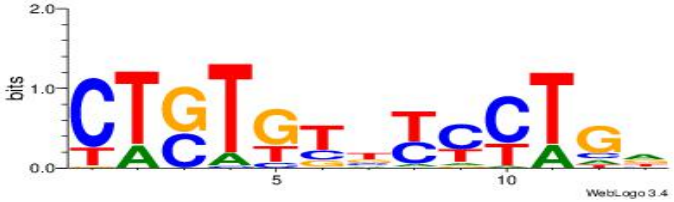


Dataset #: 1 Motif ID: 3 Motif name: Motif 3

Original motif Consensus sequence: HCAGRRVACASAG



Reverse complement motif Consensus sequence: CTSTGTBKMCTGH



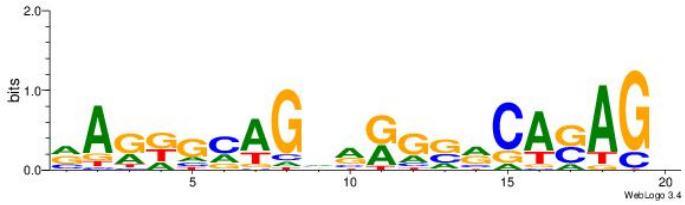
Best Matches for Significant Motif ID 3 (Highest to Lowest)

Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	7
Number of overlap:	13
Similarity score:	0.00926418

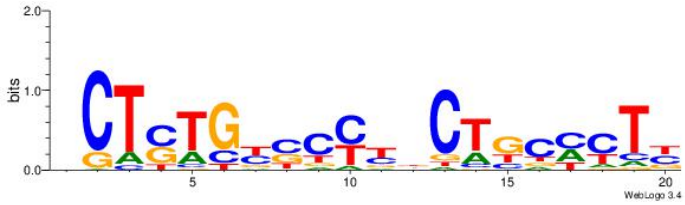
Alignment:

```
RAGKGMAGVRRGSRCASAGV
------HCAGRRVACASAG-
```

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK



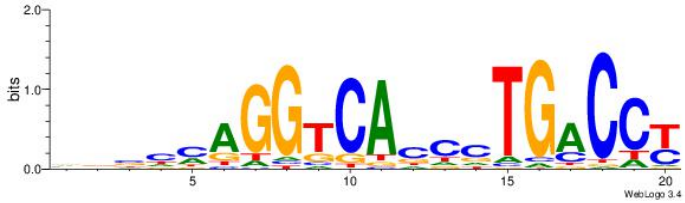
Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif

Direction:	Forward
Position number:	4
Number of overlap:	13
Similarity score:	0.0328703

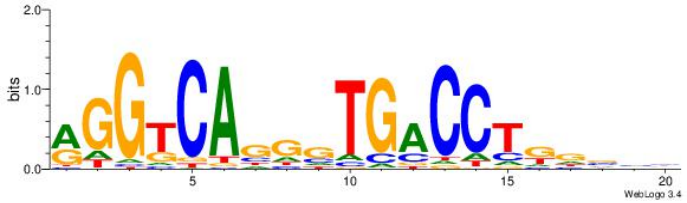
Alignment:

```
VDBHMAGGTCACCCTGACCY
---HCAGRRVACASAG----
```

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

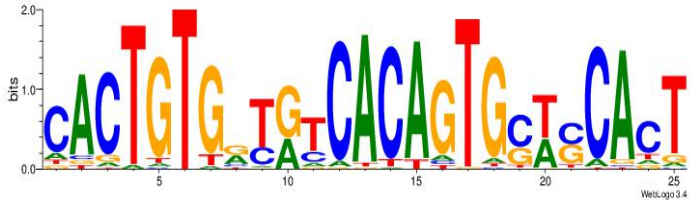


Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	13
Similarity score:	0.0400966

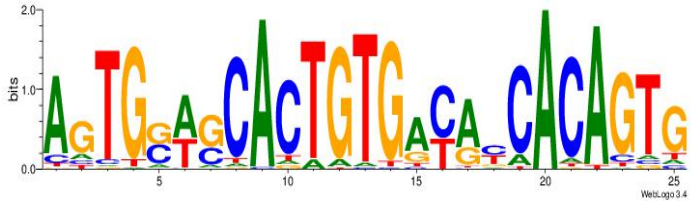
Alignment:

```
AGTGSWSCACTGTGAMAMCACAGTG
----------HCAGRRVACASAG--
```

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



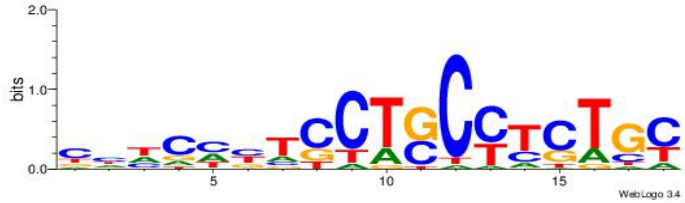
Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG



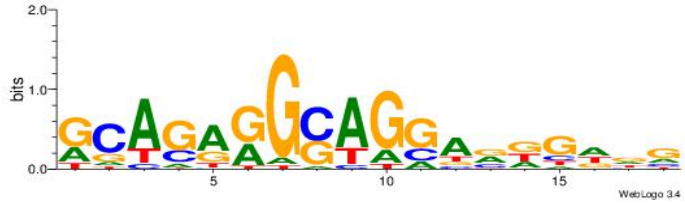
Dataset #:	5
Motif ID:	90
Motif name:	TFM2
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	13
Similarity score:	0.0435274

Alignment:
GCAGAKGSAGGABDGHDG
--HCAGRRVACASAG---

Original motif Consensus sequence: CHHCHBTCCTSCYTCTGC



Reverse complement motif Consensus sequence:
GCAGAKGSAGGABDGHDG

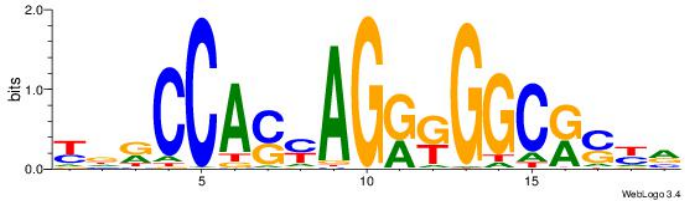


Dataset #:	3
Motif ID:	66
Motif name:	CTCF
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	7
Number of overlap:	13
Similarity score:	0.0448341

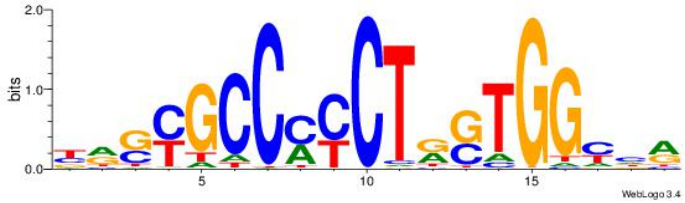
Alignment:

```
YDRCCASYAGRKGGCRSYV
------HCAGRRVACASAG
```

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM

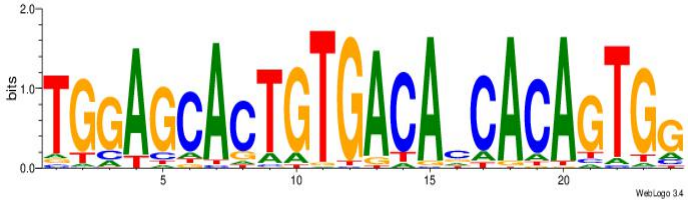


Dataset #:	4
Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4

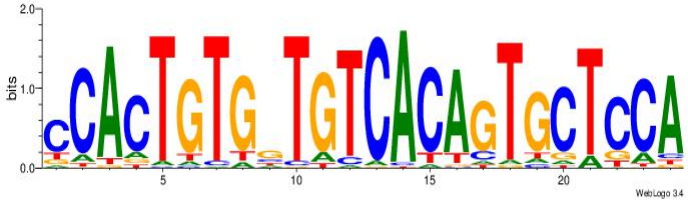
Number of overlap: 13
Similarity score: 0.045698

Alignment:
CCACTGTGVTGTCACAGTGCTCCA
---CTSTGTBKMCTGH--------

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

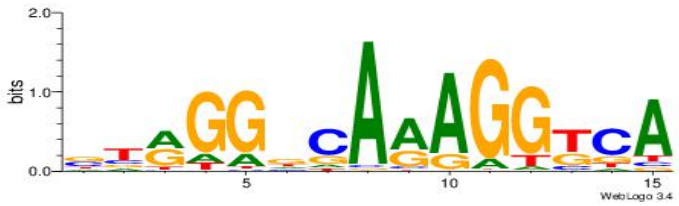


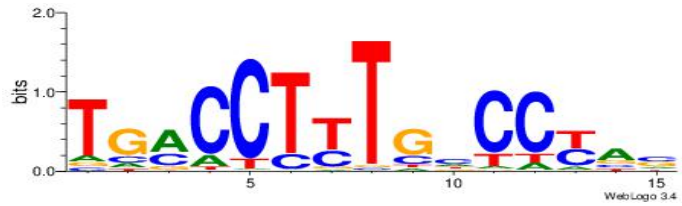
Dataset #: 3
Motif ID: 64
Motif name: PPARGRXRA
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 1
Number of overlap: 13
Similarity score: 0.0457253

Alignment:
BTRGGDCARAGGKCA
HCAGRRVACASAG--

Original motif Consensus sequence: BTRGGDCARAGGKCA

Reverse complement motif Consensus sequence: TGRCCTKTGHCCK



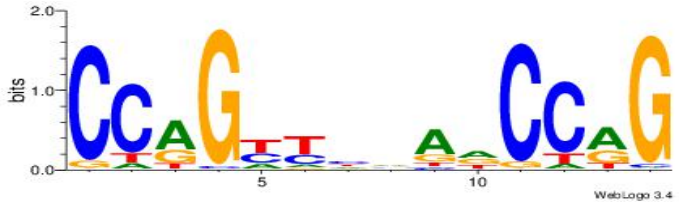


Dataset #:	3
Motif ID:	65
Motif name:	Tcfcp2l1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	13
Similarity score:	0.0477557

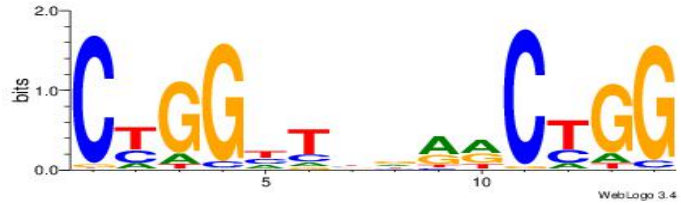
Alignment:

```
CKGGDTBDMMCTGG
CTSTGTBKMCTGH-
```

Original motif Consensus sequence: CCAGYYHVADCCRG



Reverse complement motif Consensus sequence: CKGGDTBDMMCT



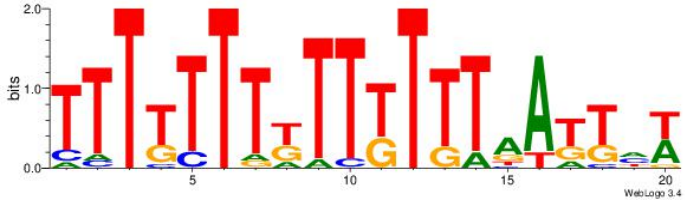
Dataset #:	5
Motif ID:	94

Motif name:	TFM13
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	13
Similarity score:	0.0478998

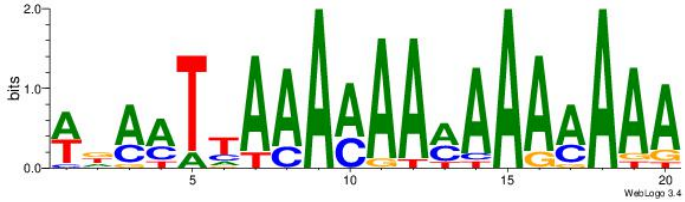
Alignment:

```
WHAATTAAARAARAAAAAAA
----HCAGRRVACASAG---
```

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW



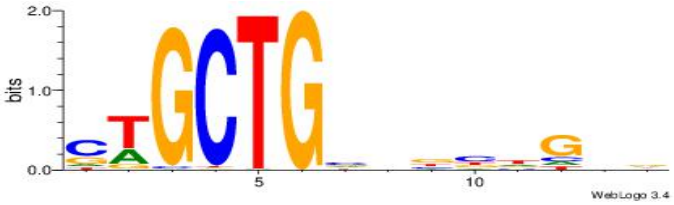
Reverse complement motif Consensus sequence: WHAATTAAARAARAAAAAAA



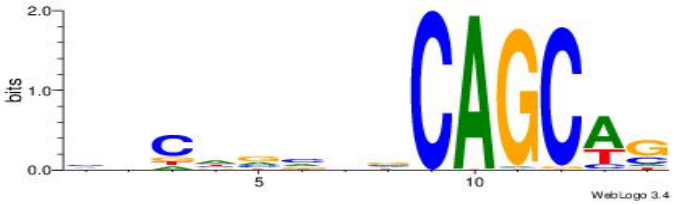
Dataset #:	5
Motif ID:	88
Motif name:	TFF11
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	13
Similarity score:	0.048132

Alignment:
HVCDBBDBCAGCAG
-HCAGRRVACASAG

Original motif Consensus sequence: CTGCTGBDBBDGBD



Reverse complement motif Consensus sequence: HVCDBBDBCAGCA



Dataset #: 3 Motif ID: 61 Motif name: NR4A2

Original motif Consensus sequence: AAGGTCAC

Reverse complement motif Consensus sequence: GTGACCTT

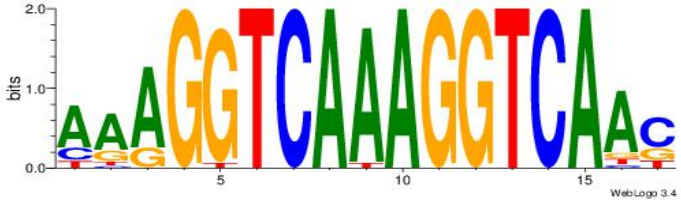
Best Matches for Significant Motif ID 61 (Highest to Lowest)

Dataset #:	3
Motif ID:	60
Motif name:	NR1H2RXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	9

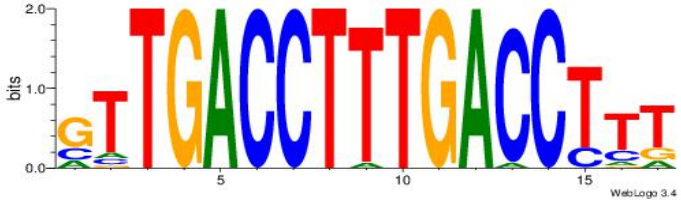
Number of overlap: 8
Similarity score: 0.0167759

Alignment:
AAAGGTCAAAGGTCAAC
-AAGGTCAC--------

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC



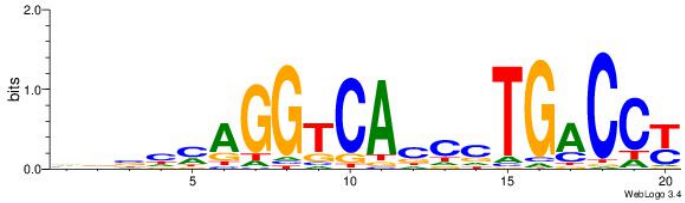
Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT



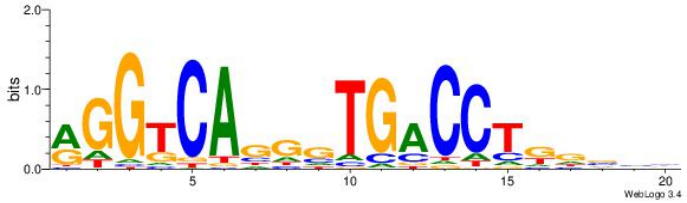
Dataset #: 3
Motif ID: 53
Motif name: ESR1
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 5
Number of overlap: 8
Similarity score: 0.0195235

Alignment:
VDBHMAGGTCACCCTGACCY
----AAGGTCAC--------

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

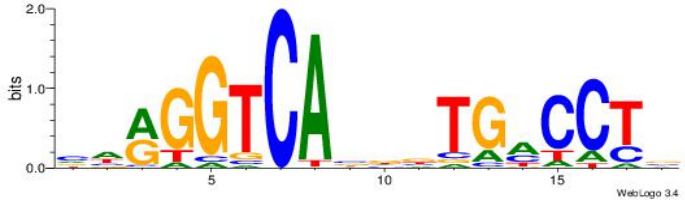


Dataset #:	3
Motif ID:	59
Motif name:	ESR2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	8
Similarity score:	0.0198372

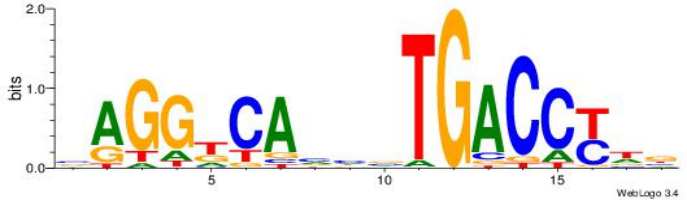
Alignment:

```
BAGGYCABHBTGACCKHV
---------GTGACCTT-
```

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB



Reverse complement motif Consensus sequence: BAGGYCABHBTGACCKHV



Dataset #:	1
Motif ID:	17
Motif name:	Motif 17
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	8
Similarity score:	0.0393171

Alignment:

```
CTTCTGACCTC
GTGACCTT---
```

Original motif Consensus sequence: CTTCTGACCTC

Reverse complement motif Consensus sequence: GAGGTCAGAAG

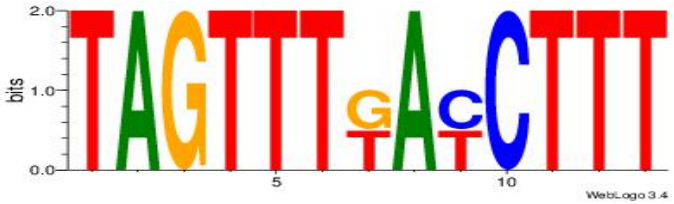
Dataset #:	1
Motif ID:	15
Motif name:	Motif 15
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	8

Similarity score: 0.040519

Alignment:
AAAGRTMAAACTA
-AAGGTCAC----

Original motif Consensus sequence: AAAGRTMAAACTA

Reverse complement motif Consensus sequence: TAGTTTYAKCTTT

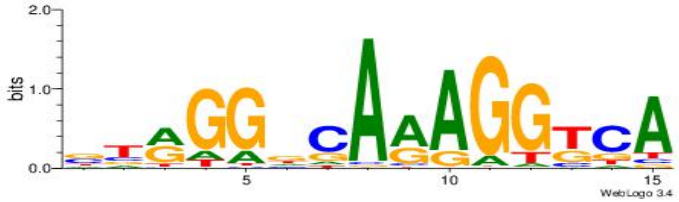


Dataset #: 3
Motif ID: 64
Motif name: PPARGRXRA
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 7
Number of overlap: 8
Similarity score: 0.0495607

Alignment:
BTRGGDCARAGGKCA
-AAGGTCAC------

Original motif Consensus sequence: BTRGGDCARAGGKCA

Reverse complement motif Consensus sequence: TGRCCTKTGHCCK



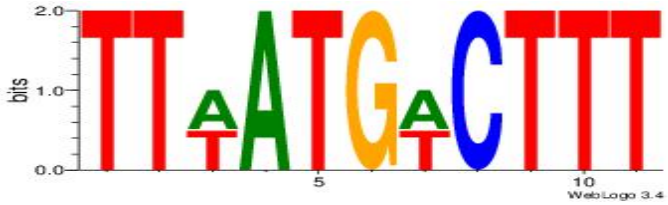
Dataset #:	1
Motif ID:	24
Motif name:	Motif 24
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	8
Similarity score:	0.0539119

Alignment:

```
TTWATGWCTTT
---GTGACCTT
```

Original motif Consensus sequence: AAAGWCATWAA

Reverse complement motif Consensus sequence: TTWATGWCTTT



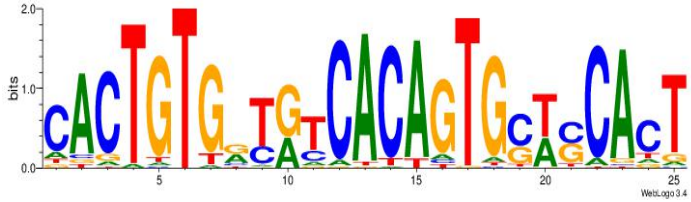
Dataset #:	4
Motif ID:	72

Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	7
Number of overlap:	8
Similarity score:	0.0557243

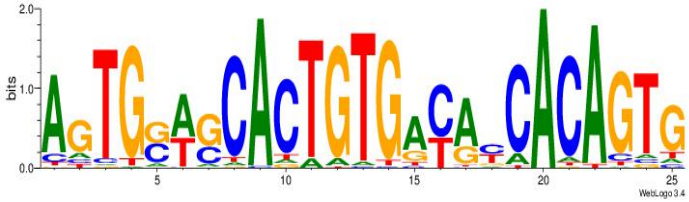
Alignment:

```
CACTGTGRTRTCACAGTGSWSCACT
------AAGGTCAC-----------
```

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



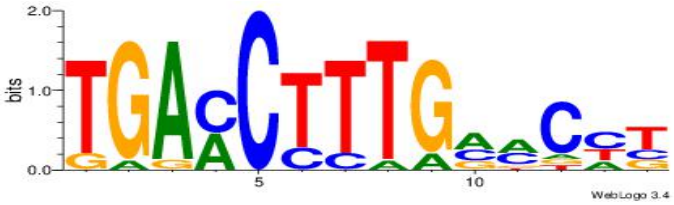
Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG



Dataset #:	3
Motif ID:	52
Motif name:	NR2F1
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	7
Number of overlap:	8
Similarity score:	0.0564874

Alignment:
AKGYYCAAAGRTCA
------AAGGTCAC

Original motif Consensus sequence: TGAMCTTTGMMCYT



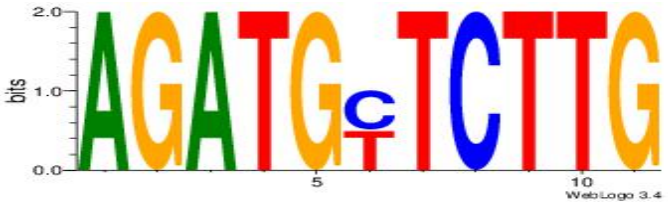
Reverse complement motif Consensus sequence: AKGYYCAAAGRTCA

Dataset #:	1
Motif ID:	35
Motif name:	Motif 35
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	8
Similarity score:	0.0566591

Alignment:
AGATGYTCTTG
-GTGACCTT--

Original motif Consensus sequence: AGATGYTCTTG

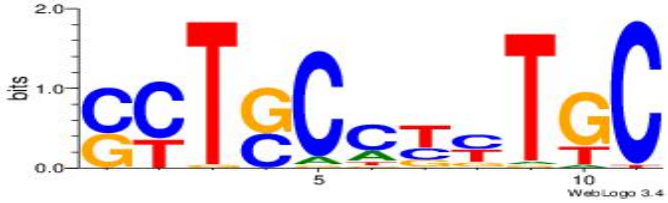
Reverse complement motif Consensus sequence: CAAGAKCATCT



Dataset #: 2 **Motif ID: 48** **Motif name: Motif 48**

Original motif Consensus sequence: GCARRGGSAGS

Reverse complement motif Consensus sequence: SCTSCCKMTGC



Best Matches for Significant Motif ID 48 (Highest to Lowest)

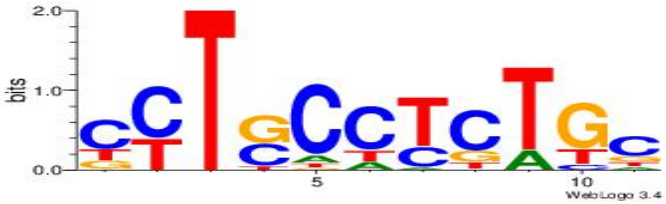
Dataset #:	1
Motif ID:	1
Motif name:	Motif 1
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0

Alignment:

GCAGAGGSAKG

GCARRGGSAGS

Original motif Consensus sequence: CYTSCCTCTGC



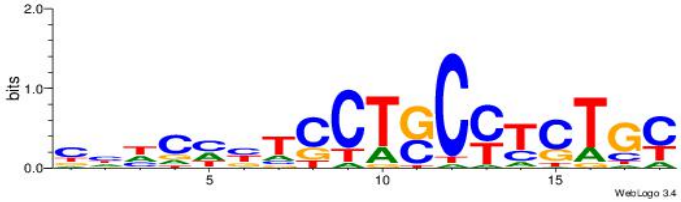
Reverse complement motif Consensus sequence: GCAGAGGSAKG

Dataset #:	5
Motif ID:	90
Motif name:	TFM2
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.000952693

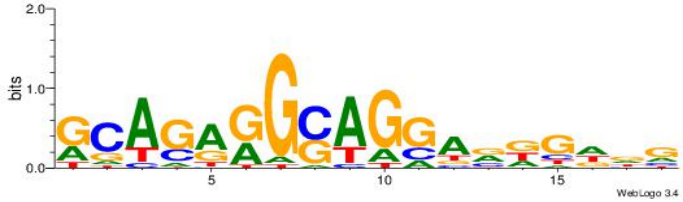
Alignment:

```
GCAGAKGSAGGABDGHDG
GCARRGGSAGS-------
```

Original motif Consensus sequence: CHHCHBTCCTSCYTCTGC



Reverse complement motif Consensus sequence: GCAGAKGSAGGABDGHDG

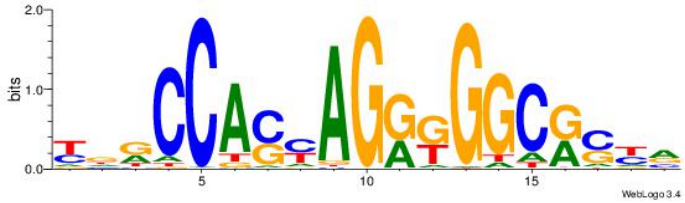


Dataset #:	3
Motif ID:	66
Motif name:	CTCF
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	11
Similarity score:	0.033658

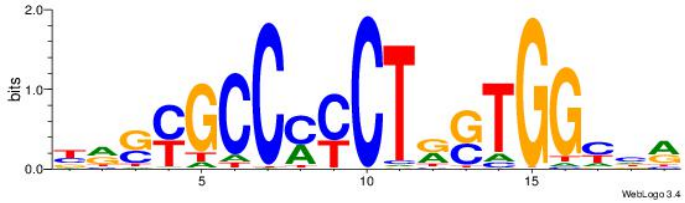
Alignment:

```
YDRCCASYAGRKGGCRSYV
------GCARRGGSAGS--
```

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM

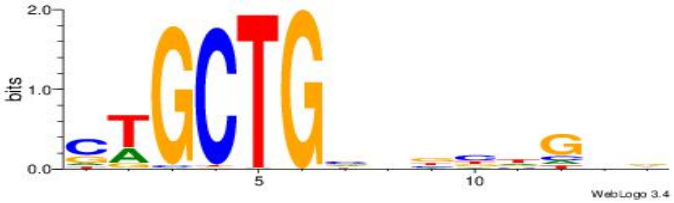


Dataset #:	5
Motif ID:	88
Motif name:	TFF11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3

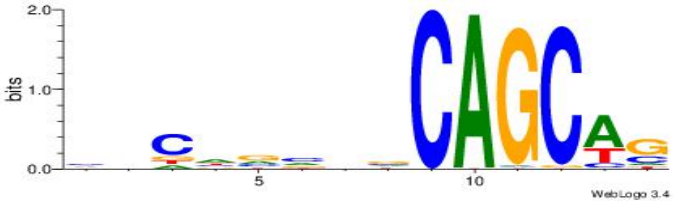
Number of overlap: 11
Similarity score: 0.0410341

Alignment:
CTGCTGBDBBDGBD
--SCTSCCKMTGC-

Original motif Consensus sequence: CTGCTGBDBBDGBD



Reverse complement motif Consensus sequence: HVCDBBDBCAGCA

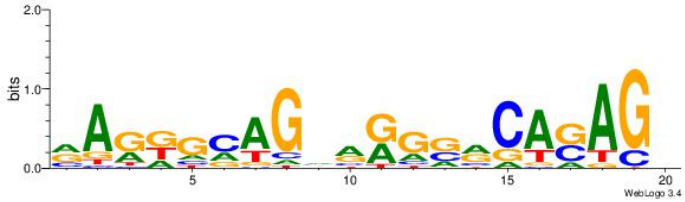


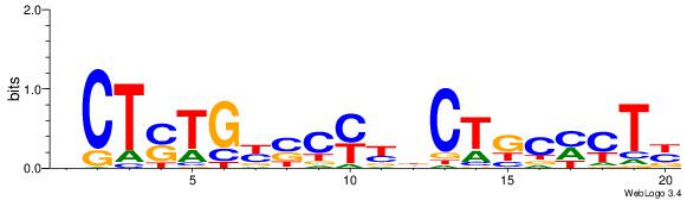
Dataset #: 5
Motif ID: 93
Motif name: TFM12
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 6
Number of overlap: 11
Similarity score: 0.0422459

Alignment:
RAGKGMAGVRRGSRCASAGV
----GCARRGGSAGS-----

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV

Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK



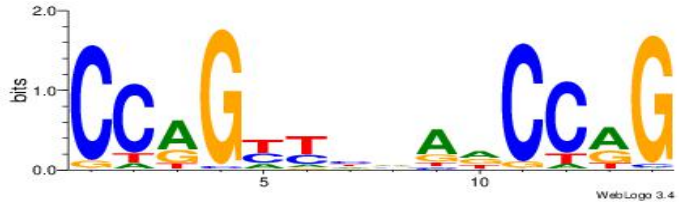


Dataset #:	3
Motif ID:	65
Motif name:	Tcfcp2l1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.0533531

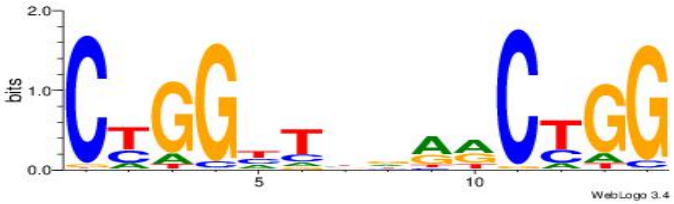
Alignment:

```
CCAGYYHVADCCRG
SCTSCCKMTGC---
```

Original motif Consensus sequence: CCAGYYHVADCCRG



Reverse complement motif Consensus sequence: CKGGDTBDMMCTG



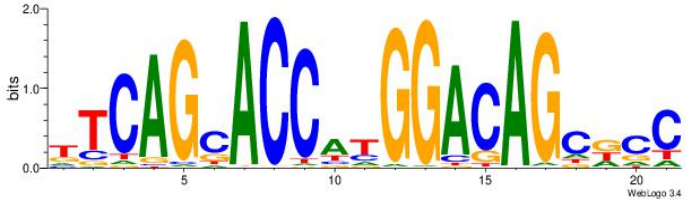
Dataset #:	3
Motif ID:	57

Motif name:	REST
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	11
Similarity score:	0.0578944

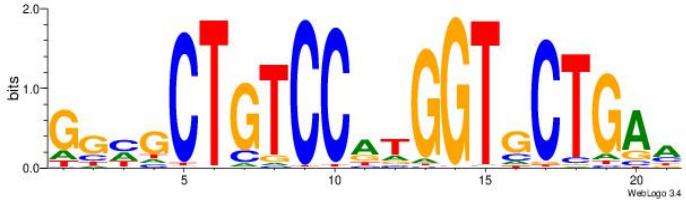
Alignment:

```
GGYGCTGTCCATGGTGCTGAA
---SCTSCCKMTGC-------
```

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



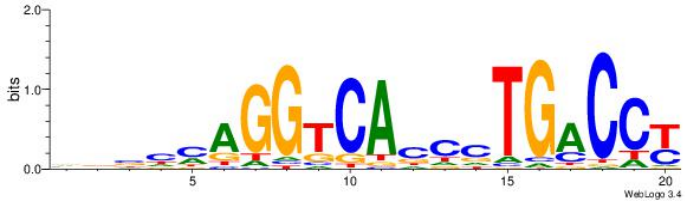
Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA



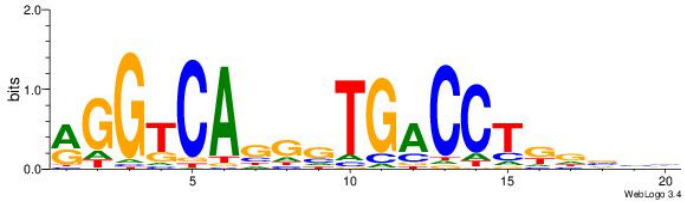
Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	11
Similarity score:	0.0620615

Alignment:
VDBHMAGGTCACCCTGACCY
--GCARRGGSAGS-------

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

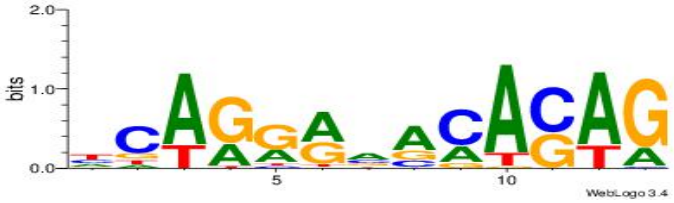


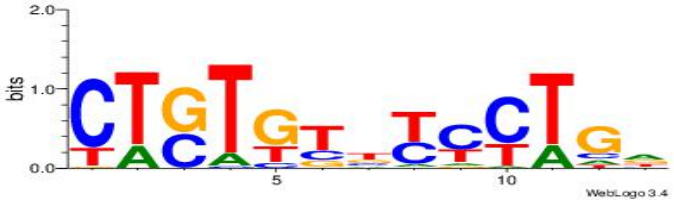
Dataset #:	1
Motif ID:	3
Motif name:	Motif 3
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.0627554

Alignment:
HCAGRRVACASAG
GCARRGGSAGS--

Original motif Consensus sequence: HCAGRRVACASAG

Reverse complement motif Consensus sequence: CTSTGTBKMCTGH



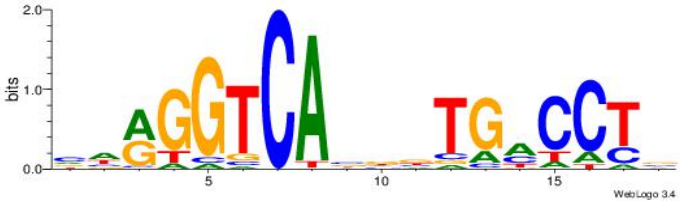


Dataset #:	3
Motif ID:	59
Motif name:	ESR2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	5
Number of overlap:	11
Similarity score:	0.0646979

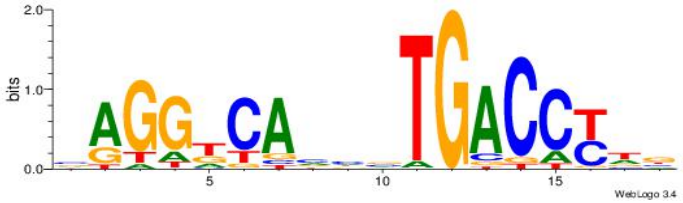
Alignment:

```
VHRGGTCABDBTGMCCTB
---SCTSCCKMTGC----
```

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB

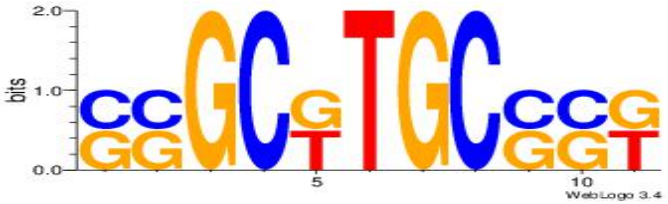


Reverse complement motif Consensus sequence: BAGGYCABHBTGACCKHV



Dataset #: 4 Motif ID: 78 Motif name: ssGCkTGCssk

Original motif Consensus sequence: SSGCKTGCSSK



Reverse complement motif Consensus sequence: YSSGCAYGCSS

Best Matches for Significant Motif ID 78 (Highest to Lowest)

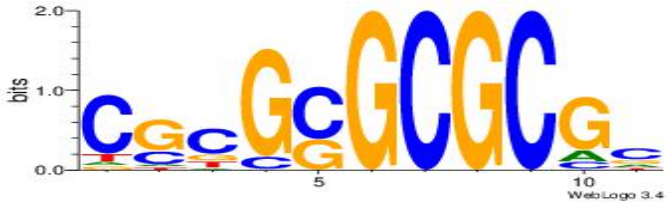
Dataset #:	4
Motif ID:	82
Motif name:	gCGCGCsCgsG
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0230178

Alignment:

```
GCGCGCSCGCG
SSGCKTGCSSK
```

Original motif Consensus sequence: GCGCGCSCGCG

Reverse complement motif Consensus sequence: CGCGSGCGCGC

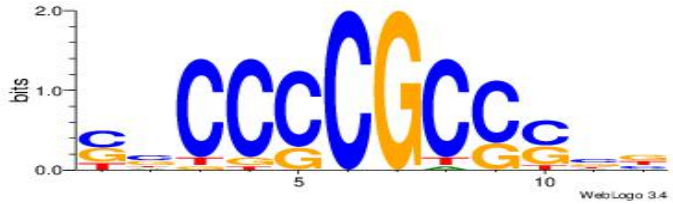


Dataset #:	4
Motif ID:	74
Motif name:	ssCCCCGCSssk
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	11
Similarity score:	0.036087

Alignment:

```
BBSGGCGGGGBS
-YSSGCAYGCSS
```

Original motif Consensus sequence: SBCCCCGCCSBB



Reverse complement motif Consensus sequence: BBSGGCGGGGBS

Dataset #:	4
Motif ID:	68
Motif name:	sscCCCGCGcs
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11

Similarity score: 0.0375477

Alignment:
SBCGCGGGGSB
YSSGCAYGCSS

Original motif Consensus sequence: BSCCCCGCGBS

Reverse complement motif Consensus sequence: SBCGCGGGGSB

Dataset #: 4
Motif ID: 79
Motif name: cCGCGGrCACG
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 1
Number of overlap: 11
Similarity score: 0.0461039

Alignment:
CCGCGGRCACG
SSGCKTGCSSK

Original motif Consensus sequence: CCGCGGRCACG

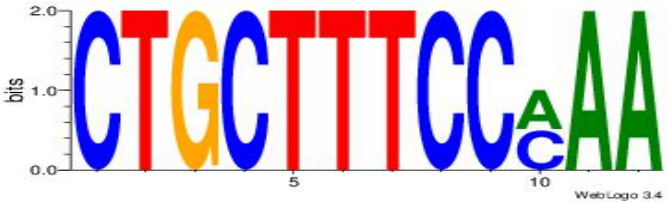
Reverse complement motif Consensus sequence: CGTGKCCGCGG

Dataset #:	1
Motif ID:	21
Motif name:	Motif 21
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	11
Similarity score:	0.0529221

Alignment:

```
CTGCTTTCCMAA
SSGCKTGCSSK-
```

Original motif Consensus sequence: CTGCTTTCCMAA



Reverse complement motif Consensus sequence: TTYGGAAAGCAG

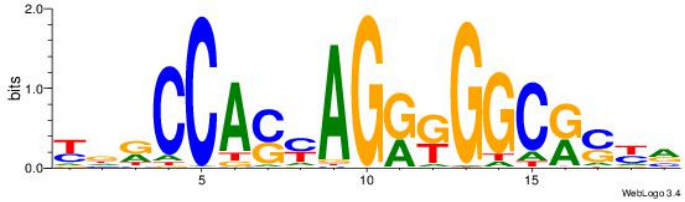
Dataset #:	3
Motif ID:	66

Motif name:	CTCF
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	8
Number of overlap:	11
Similarity score:	0.0533963

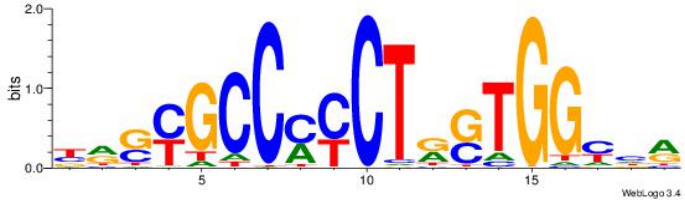
Alignment:

```
YDRCCASYAGRKGGCRSYV
-------SSGCKTGCSSK-
```

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



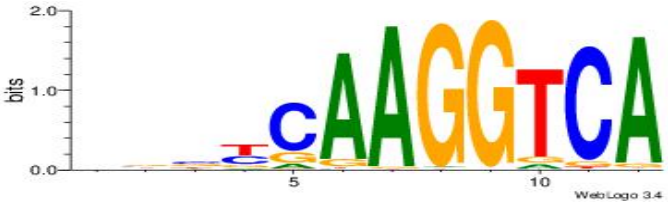
Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM



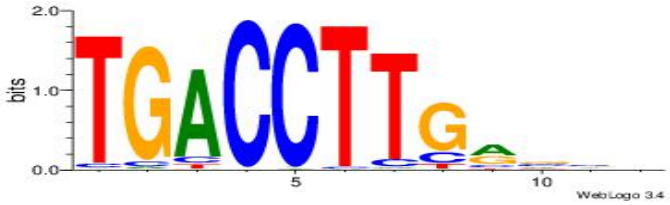
Dataset #:	3
Motif ID:	54
Motif name:	Esrrb
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	11
Similarity score:	0.0543224

Alignment:
VBBYCAAGGTCA
-YSSGCAYGCSS

Original motif Consensus sequence: VBBYCAAGGTCA



Reverse complement motif Consensus sequence: TGACCTTGMBBB

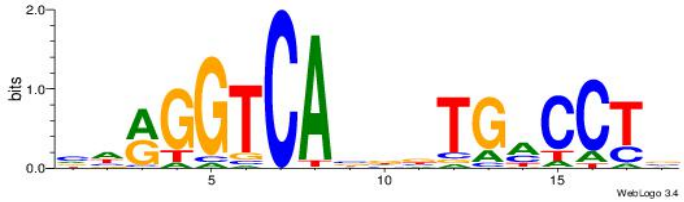


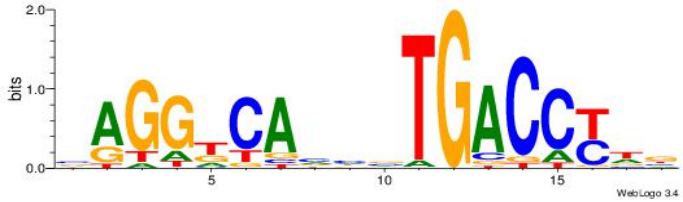
Dataset #:	3
Motif ID:	59
Motif name:	ESR2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	11
Similarity score:	0.0563598

Alignment:
VHRGGTCABDBTGMCCTB
-----YSSGCAYGCSS--

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB

Reverse complement motif Consensus sequence: BAGGYCABHBTGACCKHV



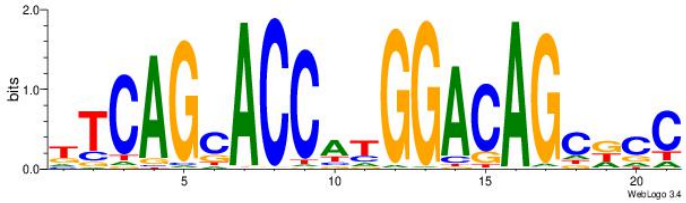


Dataset #:	3
Motif ID:	57
Motif name:	REST
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	10
Number of overlap:	11
Similarity score:	0.0593846

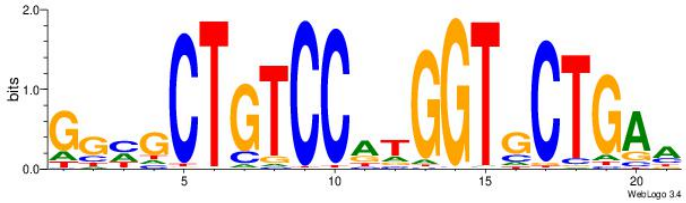
Alignment:

```
TTCAGCACCATGGACAGCKCC
-YSSGCAYGCSS---------
```

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA



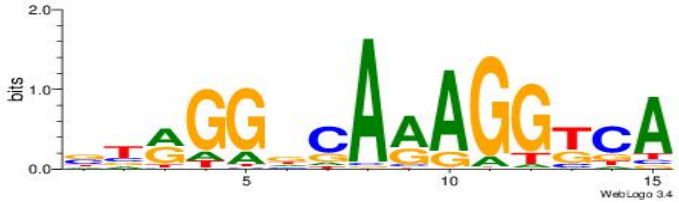
Dataset #: 3

Motif ID:	64
Motif name:	PPARGRXRA
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	11
Similarity score:	0.0598714

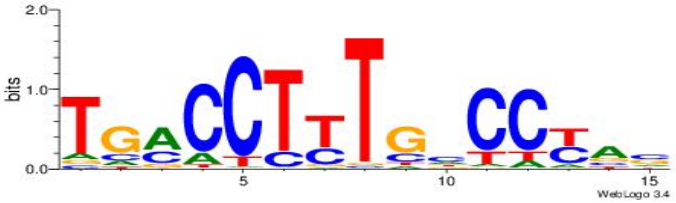
Alignment:

```
BTRGGDCARAGGKCA
--YSSGCAYGCSS--
```

Original motif Consensus sequence: BTRGGDCARAGGKCA



Reverse complement motif Consensus sequence: TGRCCTKTGHCCK



Dataset #: 4 Motif ID: 79 Motif name: cCGCGGrCACG

Original motif Consensus sequence: CCGCGGRCACG

Reverse complement motif Consensus sequence: CGTGKCCGCGG

Best Matches for Significant Motif ID 79 (Highest to Lowest)

Dataset #:	4
Motif ID:	82
Motif name:	gCGCGCsCgsG
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.010473

Alignment:
GCGCGCSCGCG
CCGCGGRCACG

Original motif Consensus sequence: GCGCGCSCGCG

Reverse complement motif Consensus sequence: CGCGSGCGCGC

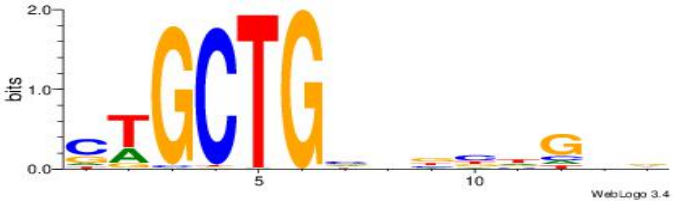
Dataset #:	5
Motif ID:	88
Motif name:	TFF11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement

Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0478408

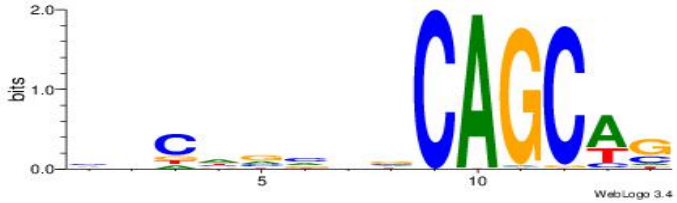
Alignment:

```
HVCDBBDBCAGCAG
---CGTGKCCGCGG
```

Original motif Consensus sequence: CTGCTGBDBBDGBD



Reverse complement motif Consensus sequence: HVCDBBDBCAGCA

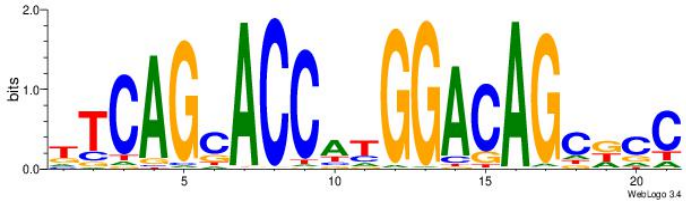


Dataset #:	3
Motif ID:	57
Motif name:	REST
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	4
Number of overlap:	11
Similarity score:	0.0484441

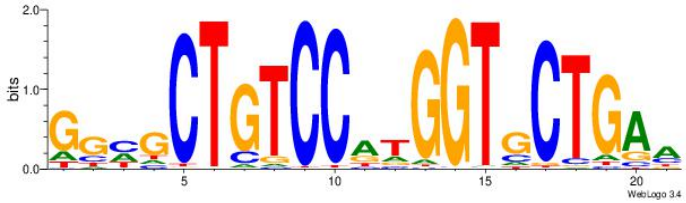
Alignment:

```
TTCAGCACCATGGACAGCKCC
-------CCGCGGRCACG---
```

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA

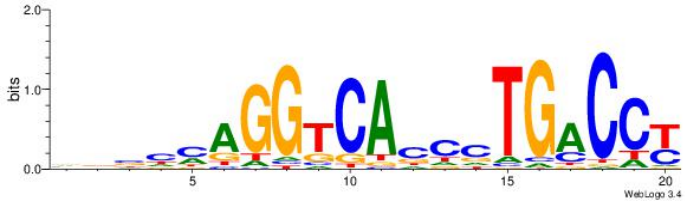


Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	11
Similarity score:	0.0486581

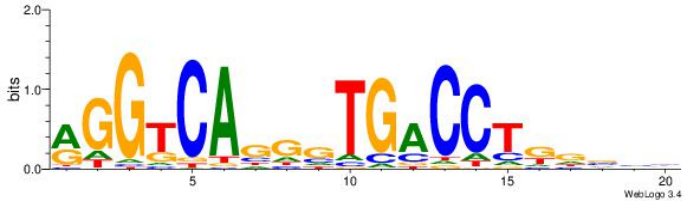
Alignment:

```
MGGTCAGGGTGACCTRDBHV
-------CGTGKCCGCGG--
```

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

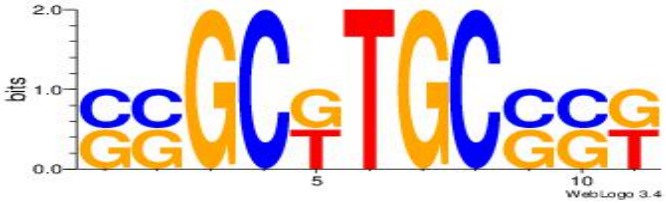


Dataset #:	4
Motif ID:	78
Motif name:	ssGCkTGCssk
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0503056

Alignment:

```
SSGCKTGCSSK
CCGCGGRCACG
```

Original motif Consensus sequence: SSGCKTGCSSK



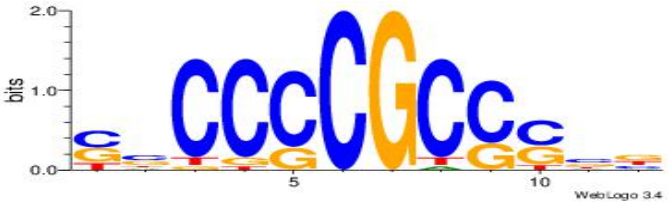
Reverse complement motif Consensus sequence: YSSGCAYGCSS

Dataset #:	4
Motif ID:	74
Motif name:	ssCCCCGCSssk
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	11

Similarity score: 0.055777

Alignment:
BBSGGCGGGGBS
CGTGKCCGCGG-

Original motif Consensus sequence: SBCCCCGCCSBB



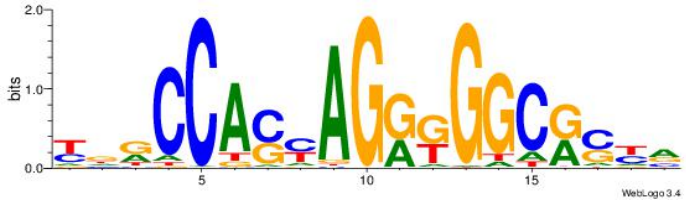
Reverse complement motif Consensus sequence: BBSGGCGGGGBS

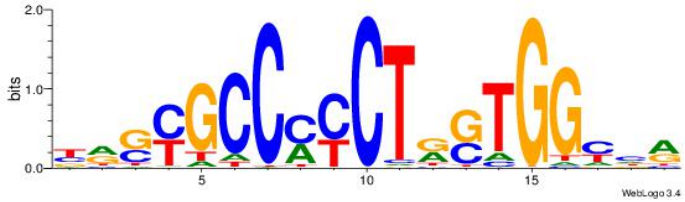
Dataset #: 3
Motif ID: 66
Motif name: CTCF
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 8
Number of overlap: 11
Similarity score: 0.0588663

Alignment:
YDRCCASYAGRKGGCRSYV
-------CCGCGGRCACG-

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV

Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM



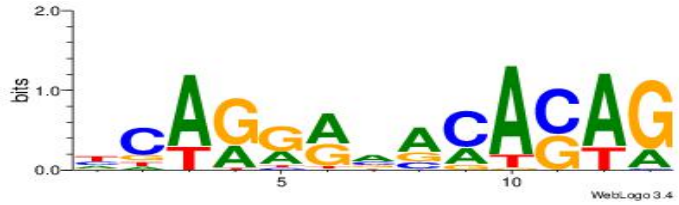


Dataset #:	1
Motif ID:	3
Motif name:	Motif 3
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	11
Similarity score:	0.0597806

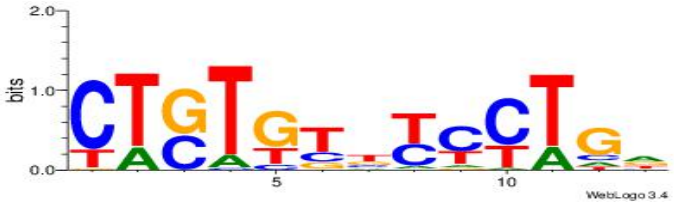
Alignment:

```
HCAGRRVACASAG
-CCGCGGRCACG-
```

Original motif Consensus sequence: HCAGRRVACASAG



Reverse complement motif Consensus sequence: CTSTGTBKMCTGH



Dataset #:	1
Motif ID:	2

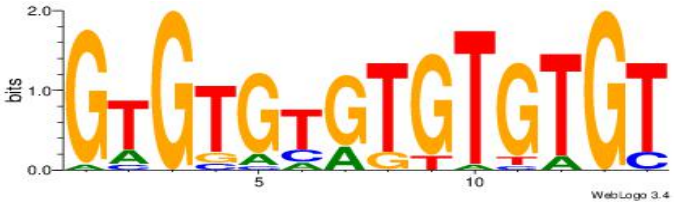
Motif name:	Motif 2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	11
Similarity score:	0.0624268

Alignment:

```
GTGTGTGTGTGTGT
-CGTGKCCGCGG--
```

Original motif Consensus sequence: ACACACACACACAC

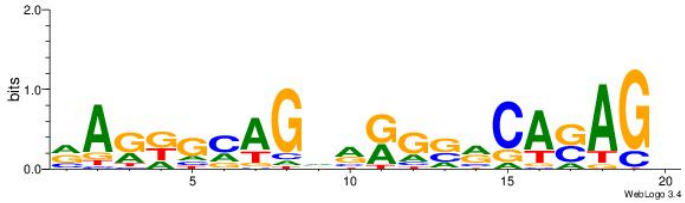
Reverse complement motif Consensus sequence: GTGTGTGTGTGTG



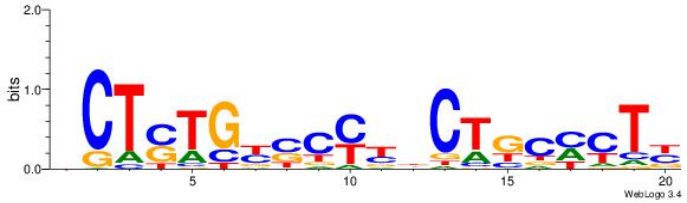
Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	5
Number of overlap:	11
Similarity score:	0.0625015

Alignment:
RAGKGMAGVRRGSRCASAGV
-----CCGCGGRCACG----

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



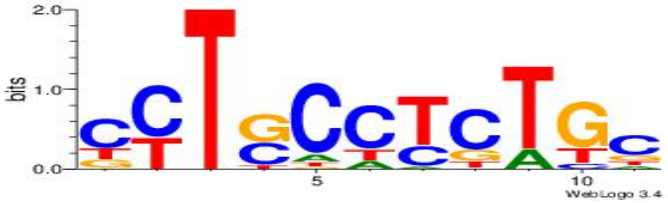
Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK



Best Matches for Each Motif (Highest to Lowest)

Dataset #: 1 Motif ID: 1 Motif name: Motif 1

Original motif Consensus sequence: CYTSCCTCTGC



Reverse complement motif Consensus sequence: GCAGAGGSAKG

Best Matches for Motif ID 1 (Highest to Lowest)

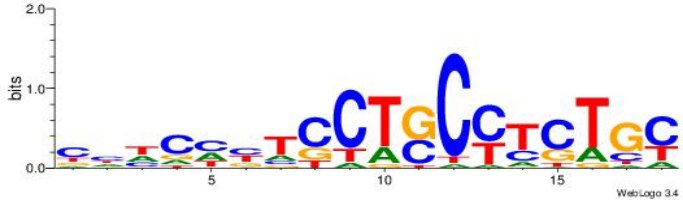
Dataset #:	5
Motif ID:	90

Motif name:	TFM2
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	8
Number of overlap:	11
Similarity score:	0

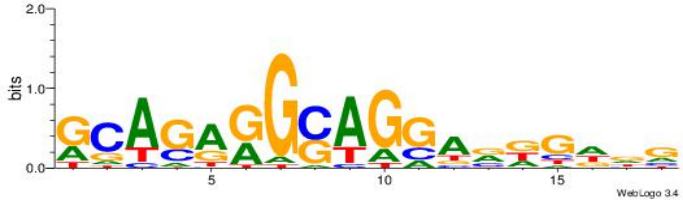
Alignment:

```
CHHCHBTCCTSCYTCTGC
-------CYTSCCTCTGC
```

Original motif Consensus sequence: CHHCHBTCCTSCYTCTGC



Reverse complement motif Consensus sequence: GCAGAKGSAGGABDGHDG



Dataset #:	2
Motif ID:	48
Motif name:	Motif 48
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.0204179

Alignment:
SCTSCCKMTGC
CYTSCCTCTGC

Original motif Consensus sequence: GCARRGGSAGS

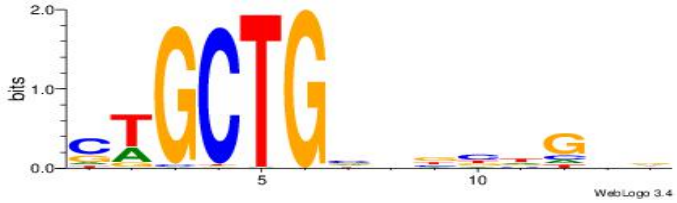
Reverse complement motif Consensus sequence: SCTSCCKMTGC

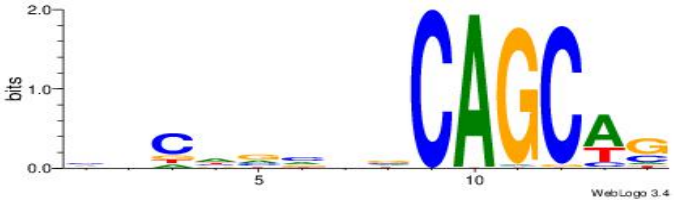
Dataset #:	5
Motif ID:	88
Motif name:	TFF11
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	11
Similarity score:	0.0606594

Alignment:
CTGCTGBDBBDGBD
--CYTSCCTCTGC-

Original motif Consensus sequence: CTGCTGBDBBDGBD

Reverse complement motif Consensus sequence: HVCDBBDBCAGCA



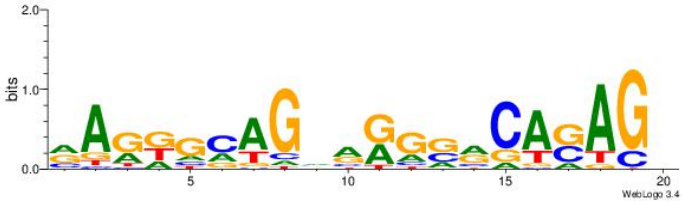


Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	6
Number of overlap:	11
Similarity score:	0.0635403

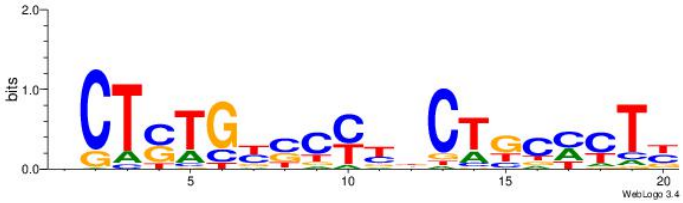
Alignment:

```
RAGKGMAGVRRGSRCASAGV
----GCAGAGGSAKG-----
```

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK



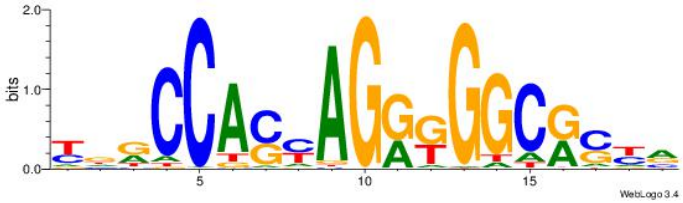
Dataset #:	3

Motif ID:	66
Motif name:	CTCF
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	11
Similarity score:	0.0656459

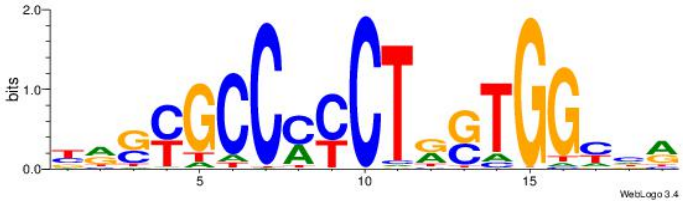
Alignment:

```
YDRCCASYAGRKGGCRSYV
------GCAGAGGSAKG--
```

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM

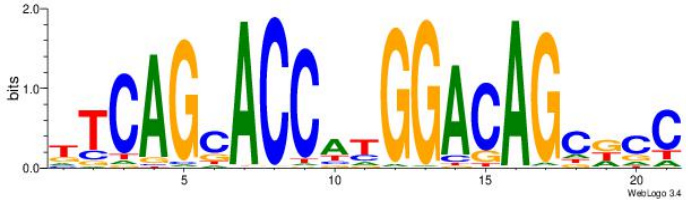


Dataset #:	3
Motif ID:	57
Motif name:	REST
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	11

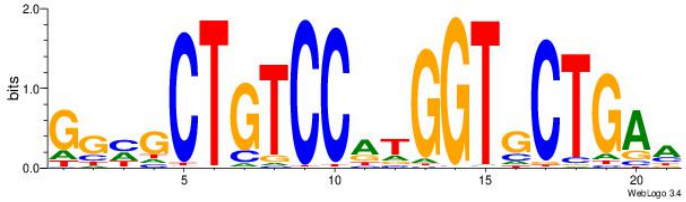
Similarity score: 0.0782887

Alignment:
GGYGCTGTCCATGGTGCTGAA
---CYTSCCTCTGC-------

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA

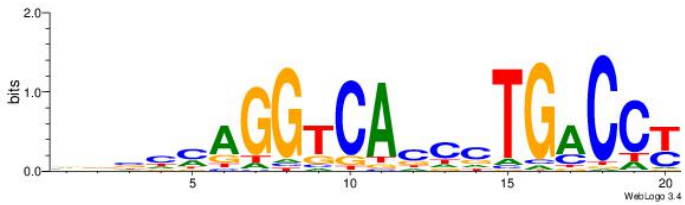


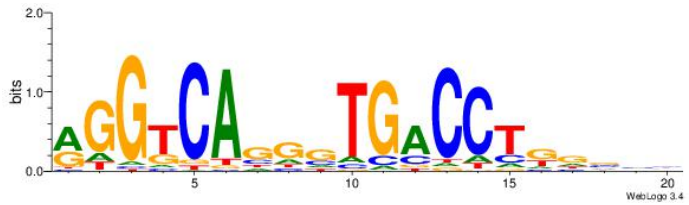
Dataset #: 3
Motif ID: 53
Motif name: ESR1
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 2
Number of overlap: 11
Similarity score: 0.0788385

Alignment:
MGGTCAGGGTGACCTRDBHV
--------CYTSCCTCTGC-

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY

Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV



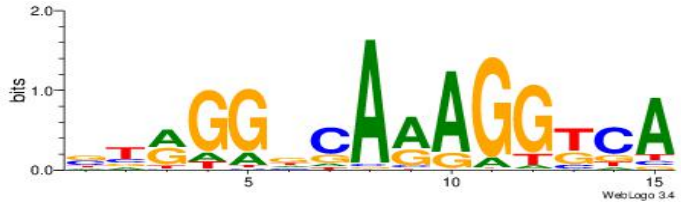


Dataset #:	3
Motif ID:	64
Motif name:	PPARGRXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	11
Similarity score:	0.0823596

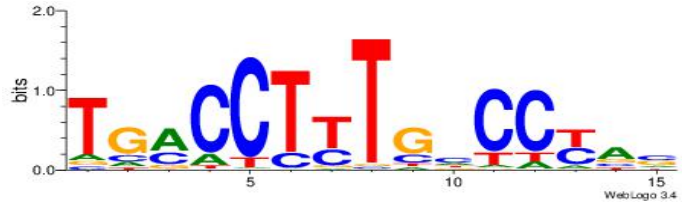
Alignment:

```
TGRCCTKTGHCCKAB
---CYTSCCTCTGC-
```

Original motif Consensus sequence: BTRGGDCARAGGKCA



Reverse complement motif Consensus sequence: TGRCCTKTGHCCK



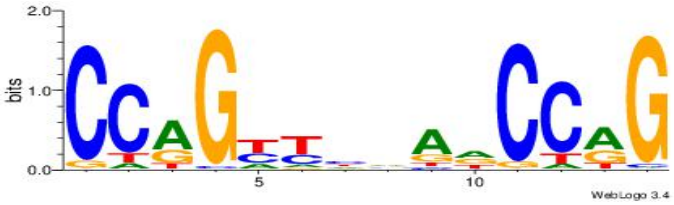
Dataset #:	3
Motif ID:	65

Motif name:	Tcfcp2l1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.0826758

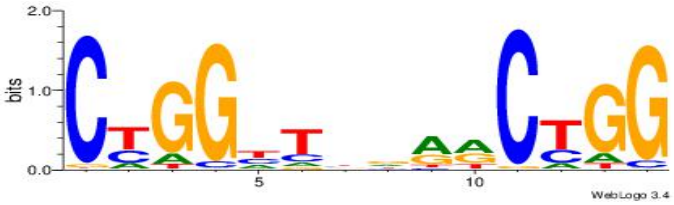
Alignment:

```
CCAGYYHVADCCRG
CYTSCCTCTGC---
```

Original motif Consensus sequence: CCAGYYHVADCCRG



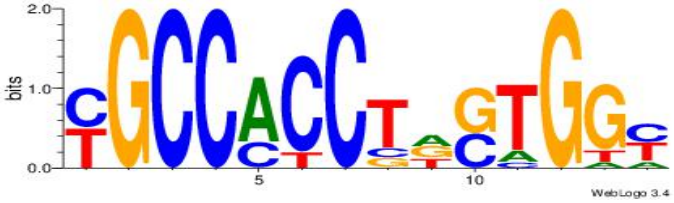
Reverse complement motif Consensus sequence: CKGGDTBDMMCT



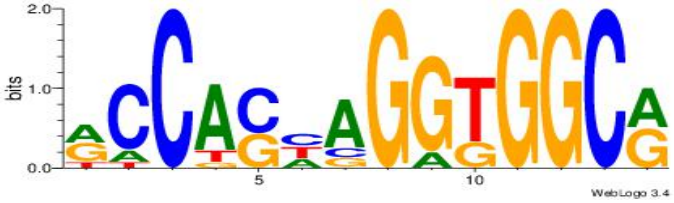
Dataset #:	2
Motif ID:	47
Motif name:	Motif 47
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	11
Similarity score:	0.0840726

Alignment:
YGCCACCTDSTGGY
--CYTSCCTCTGC-

Original motif Consensus sequence: YGCCACCTDSTGGY



Reverse complement motif Consensus sequence: KCCASDAGGTGGC

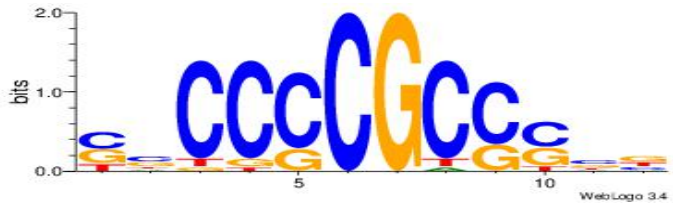


Dataset #:	4
Motif ID:	74
Motif name:	ssCCCCGCSssk
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0843055

Alignment:
BBSGGCGGGGBS
-GCAGAGGSAKG

Original motif Consensus sequence: SBCCCCGCCSBB

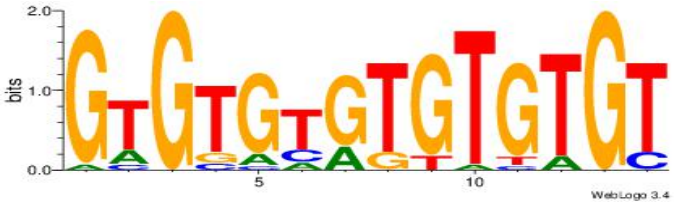
Reverse complement motif Consensus sequence: BBSGGCGGGGBS



Dataset #: 1 Motif ID: 2 Motif name: Motif 2

Original motif Consensus sequence: ACACACACACACAC

Reverse complement motif Consensus sequence: GTGTGTGTGTGTG



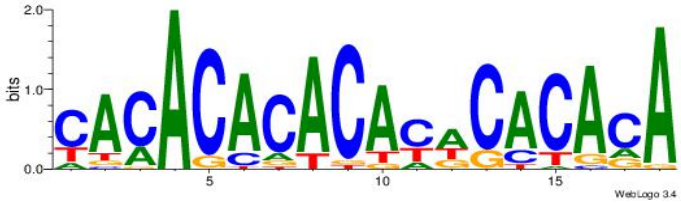
Best Matches for Motif ID 2 (Highest to Lowest)

Dataset #:	5
Motif ID:	89
Motif name:	TFM1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	14
Similarity score:	0

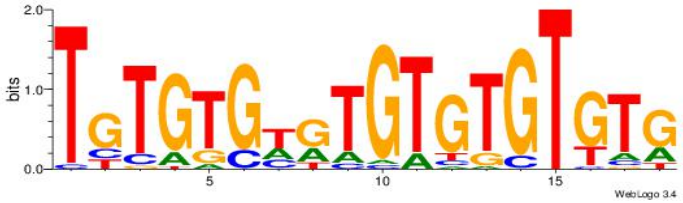
Alignment:

```
TGTGTGWGTGTGTGTGTG
-GTGTGTGTGTGTGT---
```

Original motif Consensus sequence: CACACACACACWCACACA



Reverse complement motif Consensus sequence: TGTGTGWGTGTGTGTGTG



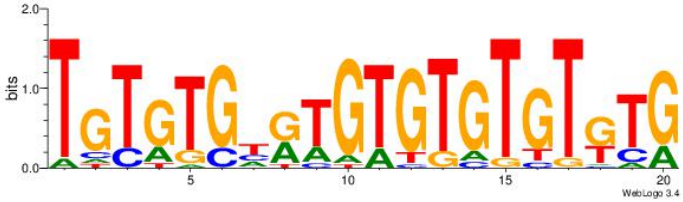
Dataset #:	5
Motif ID:	92
Motif name:	TFM11
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	14
Similarity score:	0.00332777

Alignment:

```
CAMACACACACAYDCACACA
-----ACACACACACACAC-
```

Original motif Consensus sequence: CAMACACACACAYDCACACA

Reverse complement motif Consensus sequence: TGTGTGDKTGTGTGTGTRTG

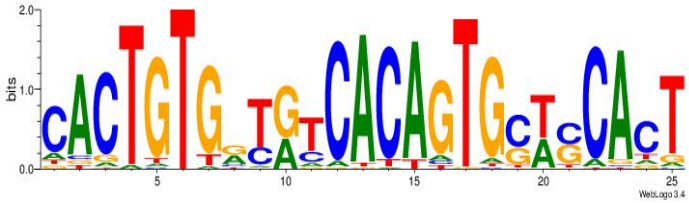


Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	14
Similarity score:	0.0819161

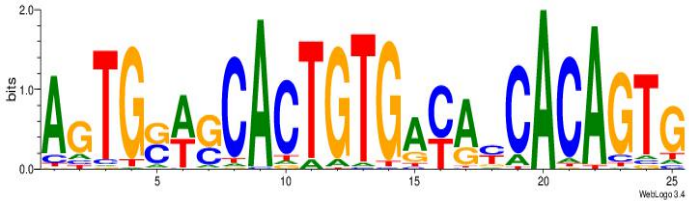
Alignment:

```
AGTGSWSCACTGTGAMAMCACAGTG
-GTGTGTGTGTGTGT----------
```

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG

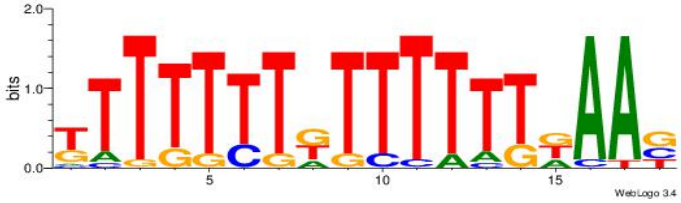


Dataset #:	5
Motif ID:	91
Motif name:	TFM3
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	4

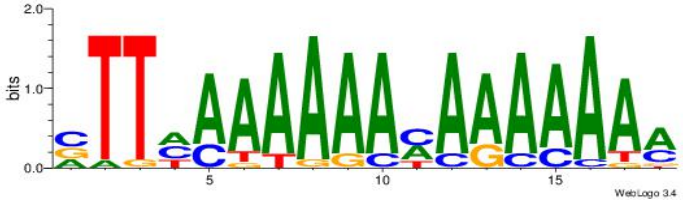
Number of overlap: 14
Similarity score: 0.082111

Alignment:
KTTTTTTKTTTTTTDAAB
-GTGTGTGTGTGTGT---

Original motif Consensus sequence: KTTTTTTKTTTTTTDAAB



Reverse complement motif Consensus sequence: BTTHAAAAAAYAAAAAAR

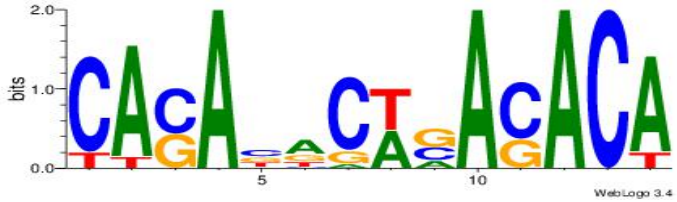


Dataset #: 1
Motif ID: 6
Motif name: Motif 6
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 2
Number of overlap: 13
Similarity score: 0.531086

Alignment:
TGTGTSWGTBTSTG-
-GTGTGTGTGTGTGT

Original motif Consensus sequence: CASABACWSACACA

Reverse complement motif Consensus sequence: TGTGTSWGTBTST

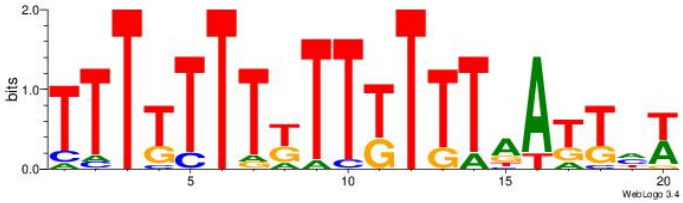


Dataset #:	5
Motif ID:	94
Motif name:	TFM13
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	8
Number of overlap:	13
Similarity score:	0.576988

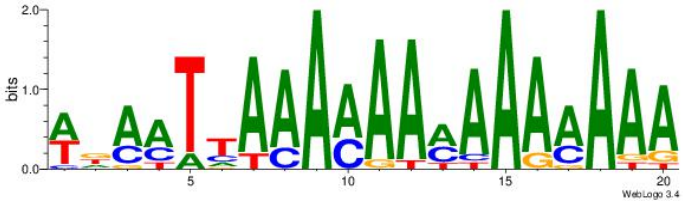
Alignment:

```
-TTTTTTTKTTKTTTAATTHW
GTGTGTGTGTGTGT-------
```

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW



Reverse complement motif Consensus sequence: WHAATTAAARAARAAAAAAA



Dataset #: 1

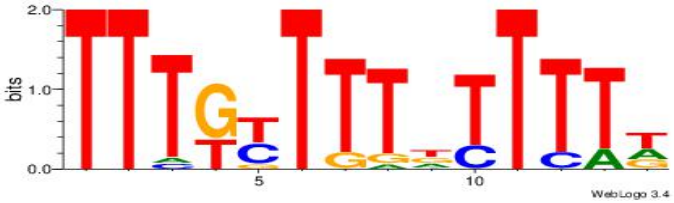
Motif ID:	4
Motif name:	Motif 4
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	13
Similarity score:	0.579965

Alignment:

```
-TTTRKTTTHTTTTH
GTGTGTGTGTGTGT-
```

Original motif Consensus sequence: HAAAAHAAARMAAA

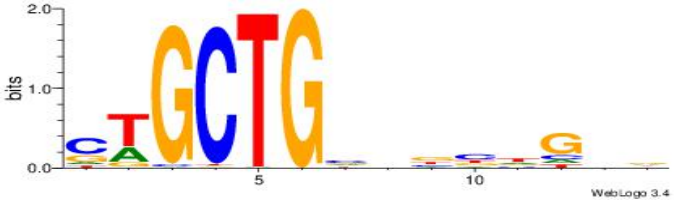
Reverse complement motif Consensus sequence: TTTRKTTTHTTTTH



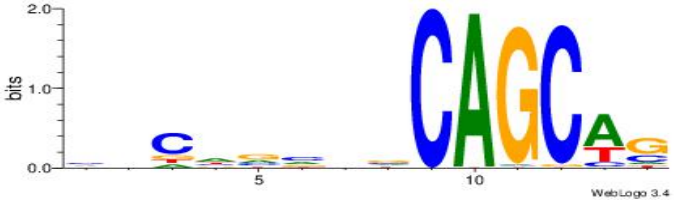
Dataset #:	5
Motif ID:	88
Motif name:	TFF11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	4
Number of overlap:	11
Similarity score:	1.5772

Alignment:
CTGCTGBDBBDGBD---
---GTGTGTGTGTGTGT

Original motif Consensus sequence: CTGCTGBDBBDGBD



Reverse complement motif Consensus sequence: HVCDBBDBCAGCA

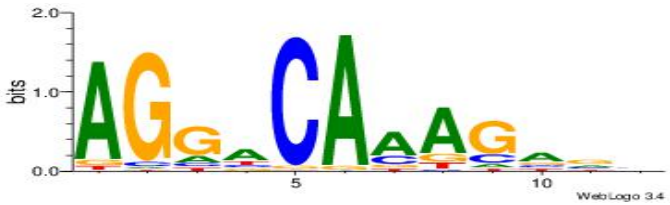


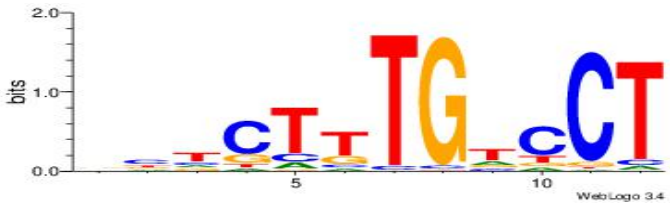
Dataset #:	5
Motif ID:	87
Motif name:	TFF1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	11
Similarity score:	1.57782

Alignment:
AGGACAAAGAVV---
-ACACACACACACAC

Original motif Consensus sequence: AGGACAAAGAVV

Reverse complement motif Consensus sequence: VVTCTTTGTCCT



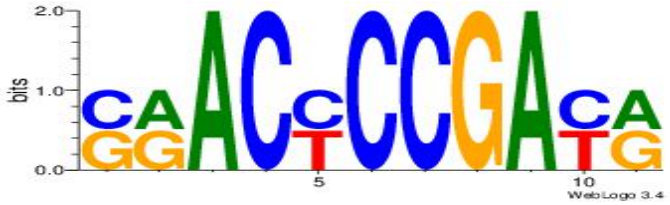


Dataset #:	4
Motif ID:	83
Motif name:	srACyCCGAyr
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	1.58018

Alignment:

```
---KKTCGGKGTKS
GTGTGTGTGTGTGT
```

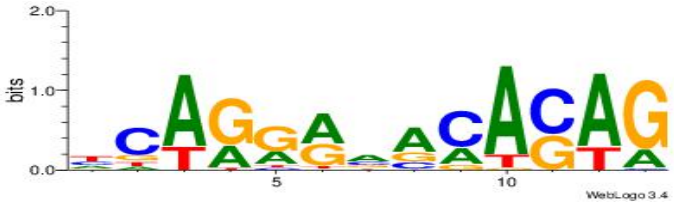
Original motif Consensus sequence: SRACYCCGAYR



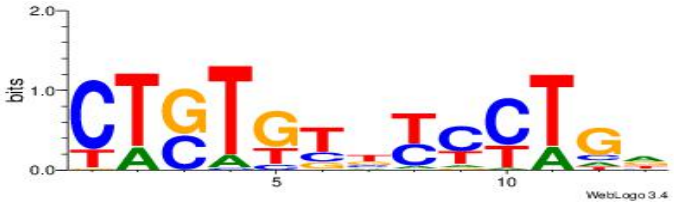
Reverse complement motif Consensus sequence: KKTCGGKGTKS

Dataset #: 1 Motif ID: 3 Motif name: Motif 3

Original motif Consensus sequence: HCAGRRVACASAG



Reverse complement motif Consensus sequence: CTSTGTBKMCTGH



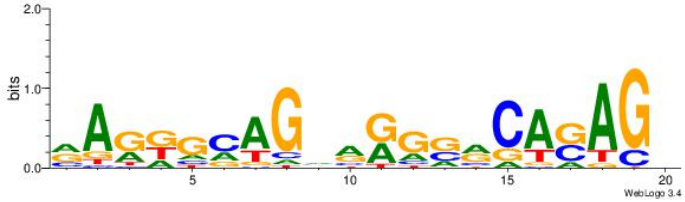
Best Matches for Motif ID 3 (Highest to Lowest)

Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	7
Number of overlap:	13
Similarity score:	0.00926418

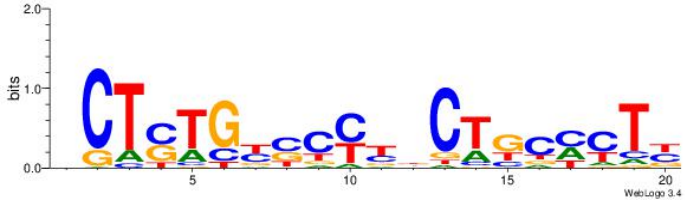
Alignment:

```
RAGKGMAGVRRGSRCASAGV
------HCAGRRVACASAG-
```

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK

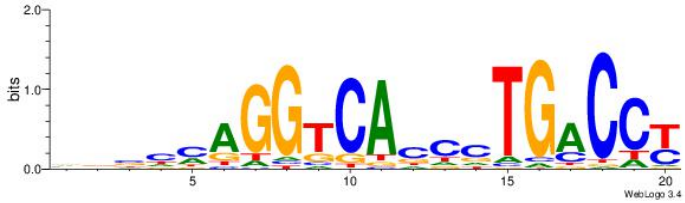


Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	4
Number of overlap:	13
Similarity score:	0.0328703

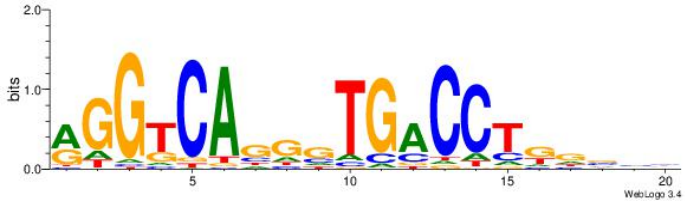
Alignment:

```
VDBHMAGGTCACCCTGACCY
---HCAGRRVACASAG----
```

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

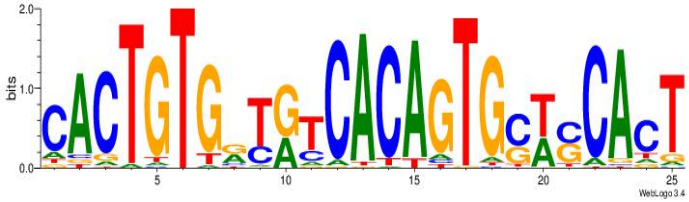


Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3

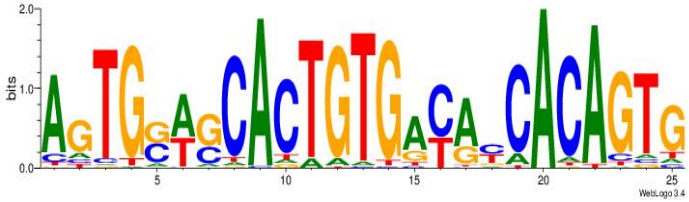
Number of overlap: 13
Similarity score: 0.0400966

Alignment:
AGTGSWSCACTGTGAMAMCACAGTG
----------HCAGRRVACASAG--

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



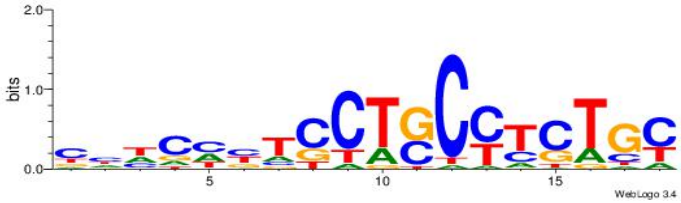
Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG



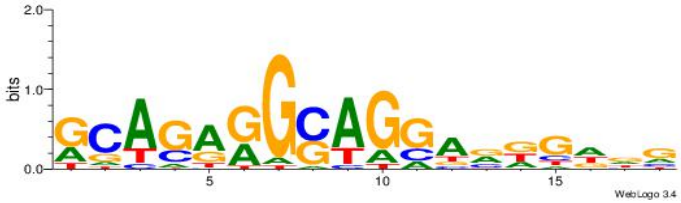
Dataset #: 5
Motif ID: 90
Motif name: TFM2
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 3
Number of overlap: 13
Similarity score: 0.0435274

Alignment:
GCAGAKGSAGGABDGHDG
--HCAGRRVACASAG---

Original motif Consensus sequence: CHHCHBTCCTSCYTCTGC



Reverse complement motif Consensus sequence: GCAGAKGSAGGABDGHDG

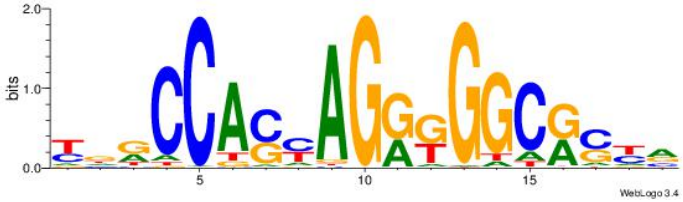


Dataset #:	3
Motif ID:	66
Motif name:	CTCF
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	7
Number of overlap:	13
Similarity score:	0.0448341

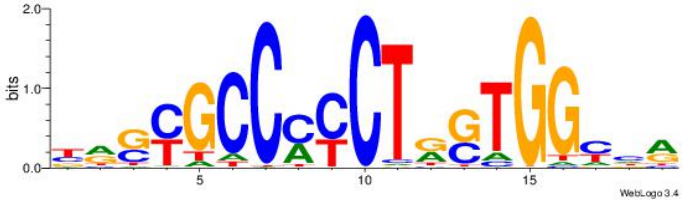
Alignment:

```
YDRCCASYAGRKGGCRSYV
------HCAGRRVACASAG
```

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM

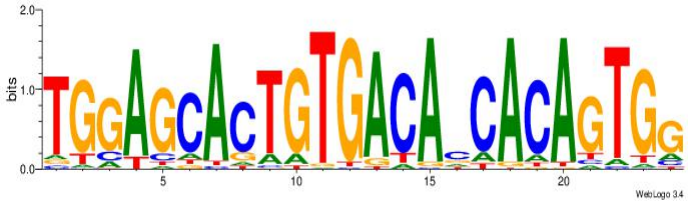


Dataset #:	4
Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	13
Similarity score:	0.045698

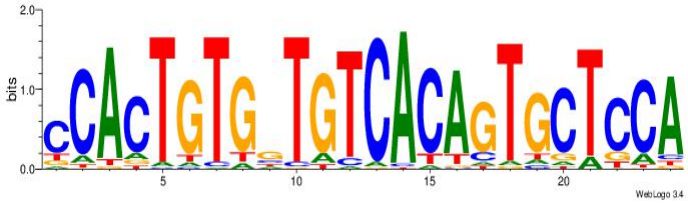
Alignment:

```
CCACTGTGVTGTCACAGTGCTCCA
---CTSTGTBKMCTGH--------
```

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA



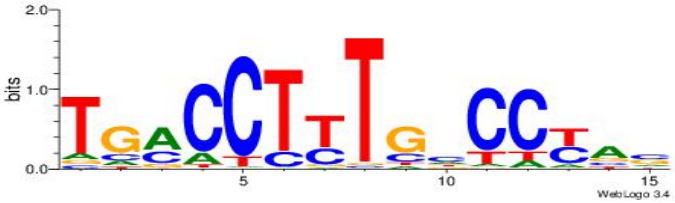
Dataset #:	3
Motif ID:	64
Motif name:	PPARGRXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1

Number of overlap: 13
Similarity score: 0.0457253

Alignment:
BTRGGDCARAGGKCA
HCAGRRVACASAG--

Original motif Consensus sequence: BTRGGDCARAGGKCA

Reverse complement motif Consensus sequence: TGRCCTKTGHCCK

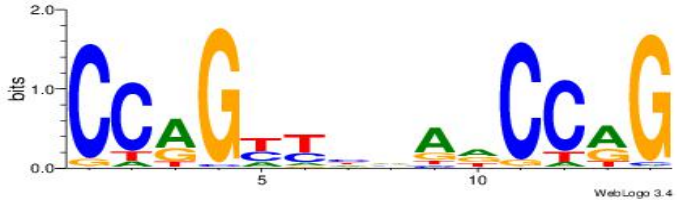


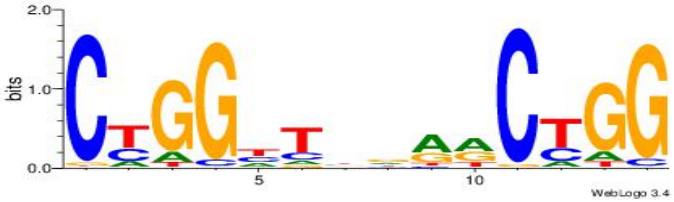
Dataset #: 3
Motif ID: 65
Motif name: Tcfcp2l1
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 1
Number of overlap: 13
Similarity score: 0.0477557

Alignment:
CKGGDTBDMMCTGG
CTSTGTBKMCTGH-

Original motif Consensus sequence: CCAGYYHVADCCRG

Reverse complement motif Consensus sequence: CKGGDTBDMMCT



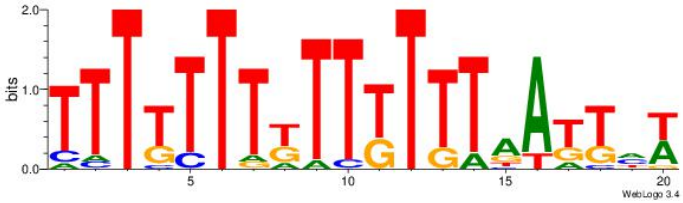


Dataset #:	5
Motif ID:	94
Motif name:	TFM13
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	13
Similarity score:	0.0478998

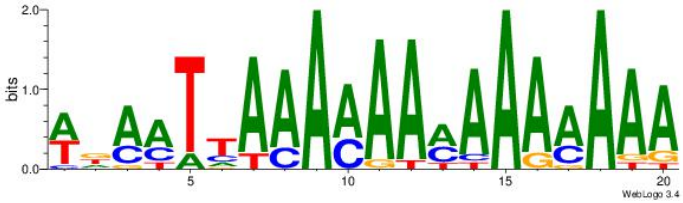
Alignment:

```
WHAATTAAARAARAAAAAAA
----HCAGRRVACASAG---
```

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW



Reverse complement motif Consensus sequence:
WHAATTAAARAARAAAAAAA



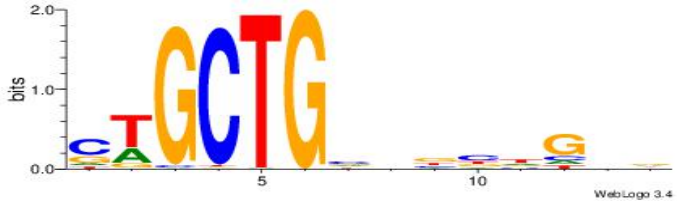
Dataset #:	5

Motif ID:	88
Motif name:	TFF11
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	13
Similarity score:	0.048132

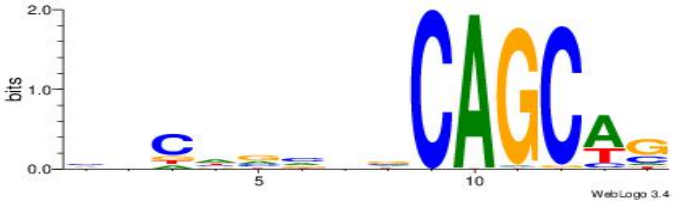
Alignment:

```
HVCDBBDBCAGCAG
-HCAGRRVACASAG
```

Original motif Consensus sequence: CTGCTGBDBBDGBD



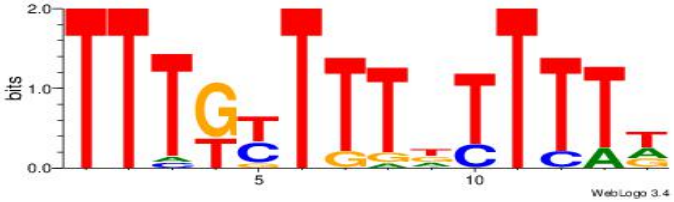
Reverse complement motif Consensus sequence: HVCDBBDBCAGCA



Dataset #: 1 Motif ID: 4 Motif name: Motif 4

Original motif Consensus sequence: HAAAAHAAARMAAA

Reverse complement motif Consensus sequence: TTTRKTTTHTTTTH



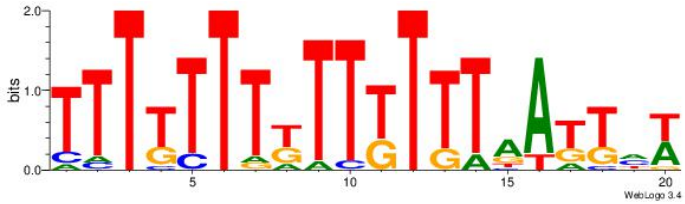
Best Matches for Motif ID 4 (Highest to Lowest)

Dataset #:	5
Motif ID:	94
Motif name:	TFM13
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	6
Number of overlap:	14
Similarity score:	0.0333546

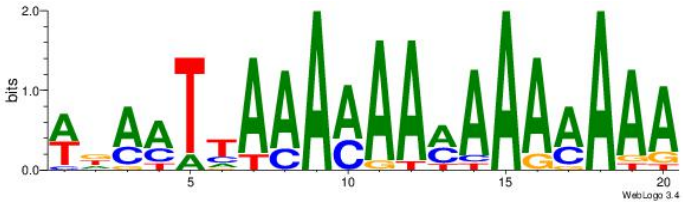
Alignment:

```
WHAATTAAARAARAAAAAAA
-----HAAAAHAAARMAAA-
```

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW



Reverse complement motif Consensus sequence: WHAATTAAARAARAAAAAAA

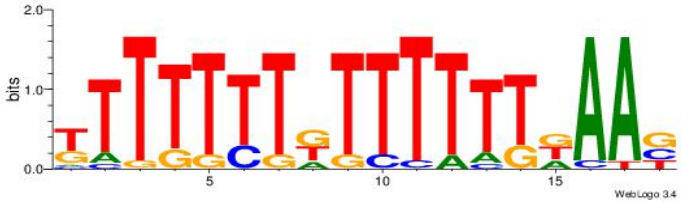


Dataset #:	5
Motif ID:	91
Motif name:	TFM3
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement

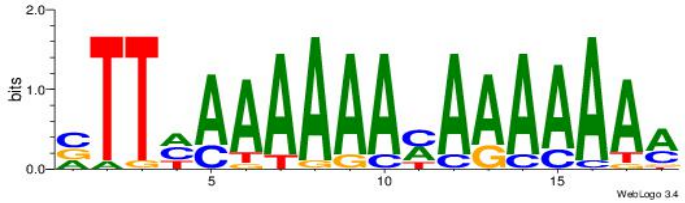
Direction:	Forward
Position number:	4
Number of overlap:	14
Similarity score:	0.0408482

Alignment:
BTTHAAAAAAYAAAAAAR
---HAAAAHAAARMAAA-

Original motif Consensus sequence: KTTTTTTKTTTTTTDAAB



Reverse complement motif Consensus sequence:
BTTHAAAAAAYAAAAAAR

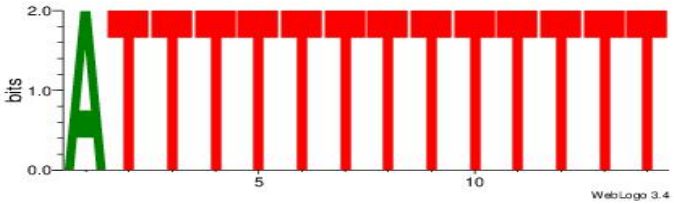


Dataset #:	2
Motif ID:	49
Motif name:	Motif 49
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	14
Similarity score:	0.0486607

Alignment:
AAAAAAAAAAAAAT
HAAAAHAAARMAAA

Original motif Consensus sequence: AAAAAAAAAAAAAT

Reverse complement motif Consensus sequence: ATTTTTTTTTTTTT

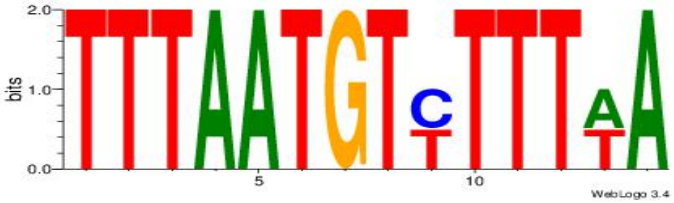


Dataset #:	1
Motif ID:	33
Motif name:	Motif 33
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	14
Similarity score:	0.0540179

Alignment:

```
TTTAATGTYTTTWA
TTTRKTTTHTTTTH
```

Original motif Consensus sequence: TTTAATGTYTTTWA



Reverse complement motif Consensus sequence: TWAAAKACATTAA

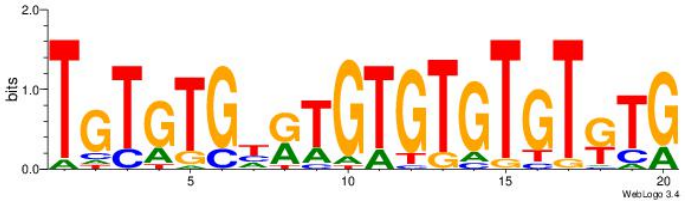
Dataset #:	5
Motif ID:	92
Motif name:	TFM11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	5
Number of overlap:	14
Similarity score:	0.0882898

Alignment:

```
TGTGTGDKTGTGTGTGTRTG
--TTTRKTTTHTTTTH----
```

Original motif Consensus sequence: CAMACACACACAYDCACACA

Reverse complement motif Consensus sequence: TGTGTGDKTGTGTGTGTRTG

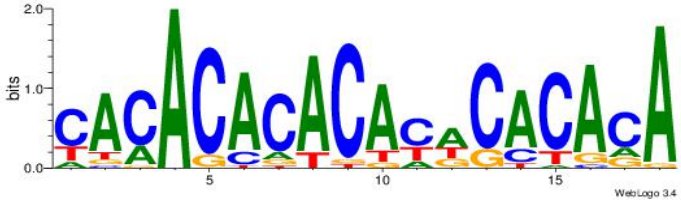


Dataset #:	5
Motif ID:	89
Motif name:	TFM1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1

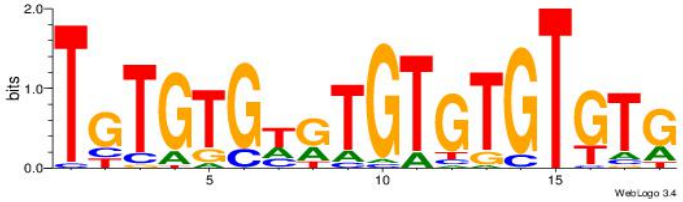
Number of overlap: 14
Similarity score: 0.0933036

Alignment:
CACACACACACWCACACA
HAAAAHAAARMAAA----

Original motif Consensus sequence: CACACACACACWCACACA



Reverse complement motif Consensus sequence: TGTGTGWGTGTGTGTGTG

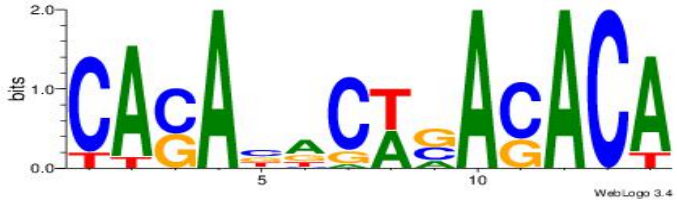


Dataset #: 1
Motif ID: 6
Motif name: Motif 6
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 1
Number of overlap: 14
Similarity score: 0.0942815

Alignment:
CASABACWSACACA
HAAAAHAAARMAAA

Original motif Consensus sequence: CASABACWSACACA

Reverse complement motif Consensus sequence: TGTGTSWGTBTST

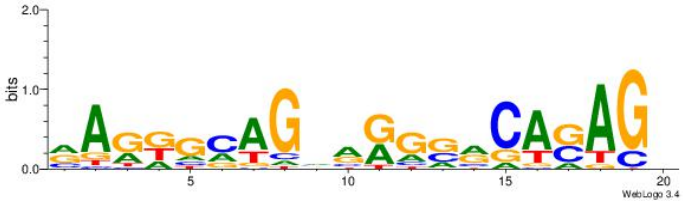


Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	14
Similarity score:	0.096284

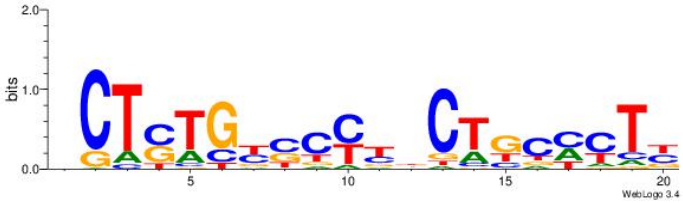
Alignment:

```
RAGKGMAGVRRGSRCASAGV
----HAAAAHAAARMAAA--
```

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK



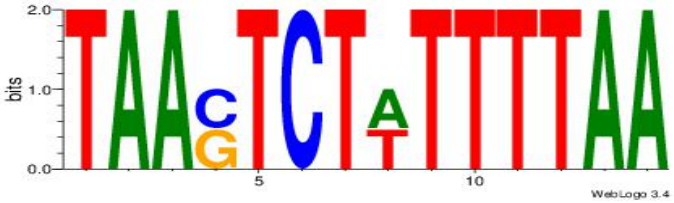
Dataset #: 1

Motif ID:	45
Motif name:	Motif 45
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	13
Similarity score:	0.563221

Alignment:

```
-TAASTCTWTTTTAA
TTTRKTTTHTTTTH-
```

Original motif Consensus sequence: TAASTCTWTTTTAA



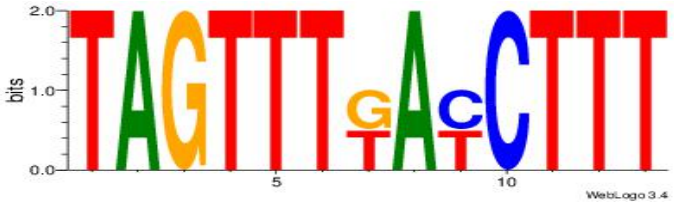
Reverse complement motif Consensus sequence: TTAAAAWAGASTT

Dataset #:	1
Motif ID:	15
Motif name:	Motif 15
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	13
Similarity score:	0.572837

Alignment:
AAAGRTMAAACTA-
HAAAAHAAARMAAA

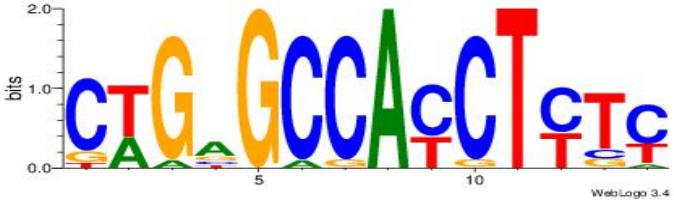
Original motif Consensus sequence: AAAGRTMAAACTA

Reverse complement motif Consensus sequence: TAGTTTYAKCTTT

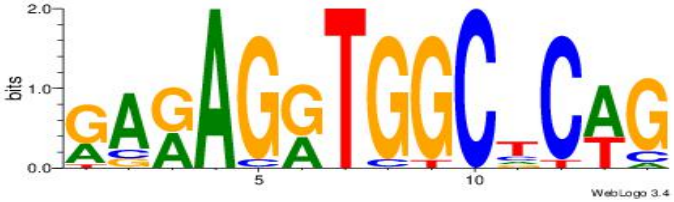


Dataset #: 1 Motif ID: 5 Motif name: Motif 5

Original motif Consensus sequence: CWGAGCCAYCTYTC



Reverse complement motif Consensus sequence: GAKAGKTGGCTCW



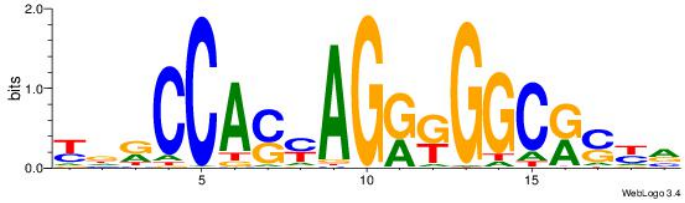
Best Matches for Motif ID 5 (Highest to Lowest)

Dataset #:	3
Motif ID:	66
Motif name:	CTCF
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1

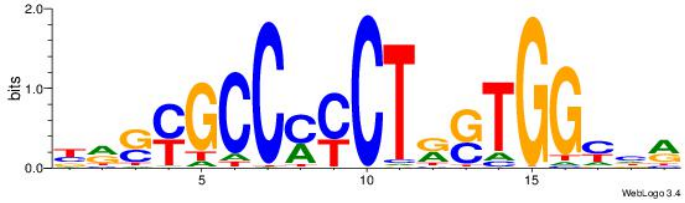
Number of overlap: 14
Similarity score: 0.0474988

Alignment:
YDRCCASYAGRKGGCRSYV
-----GAKAGKTGGCTCWG

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



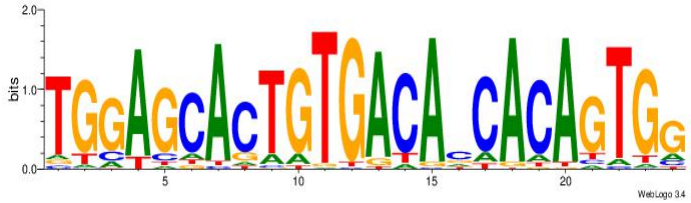
Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM



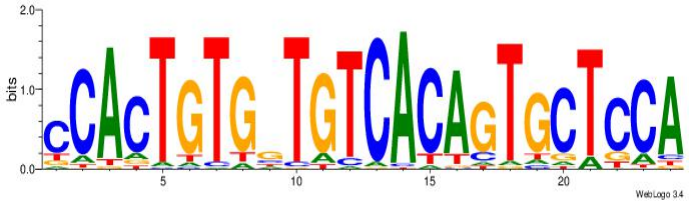
Dataset #: 4
Motif ID: 73
Motif name: TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 8
Number of overlap: 14
Similarity score: 0.0554531

Alignment:
CCACTGTGVTGTCACAGTGCTCCA
---GAKAGKTGGCTCWG-------

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

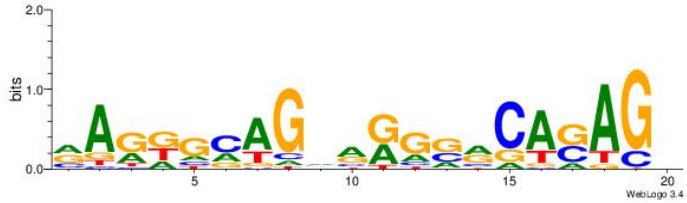


Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	14
Similarity score:	0.0576317

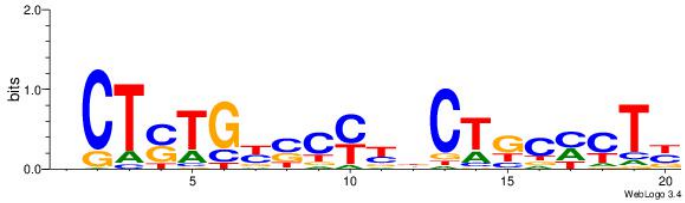
Alignment:

```
VCTSTGKSCMKBCTRCYCTK
---CWGAGCCAYCTYTC---
```

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK

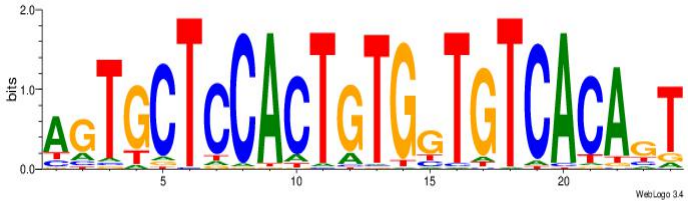


Dataset #:	4
Motif ID:	77
Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	14
Similarity score:	0.0576632

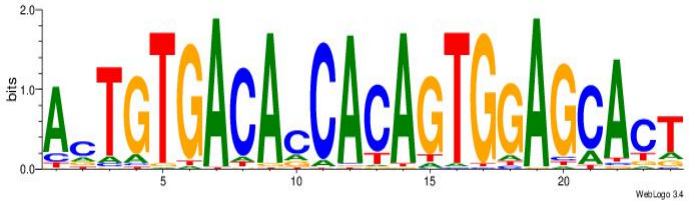
Alignment:

```
ACTGTGACACCACAGTGGAGCACT
-CWGAGCCAYCTYTC---------
```

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT

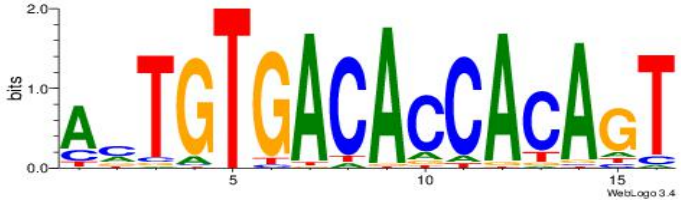


Dataset #:	4
Motif ID:	71
Motif name:	AmTGTGACACCACAGT
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2

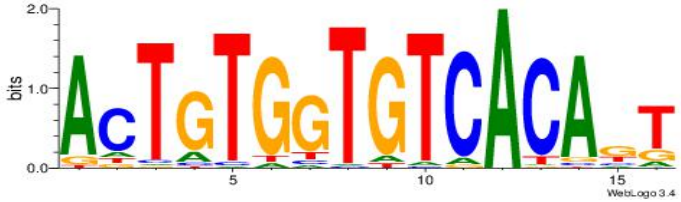
Number of overlap: 14
Similarity score: 0.0578361

Alignment:
AMTGTGACACCACAGT
-CWGAGCCAYCTYTC-

Original motif Consensus sequence: AMTGTGACACCACAGT



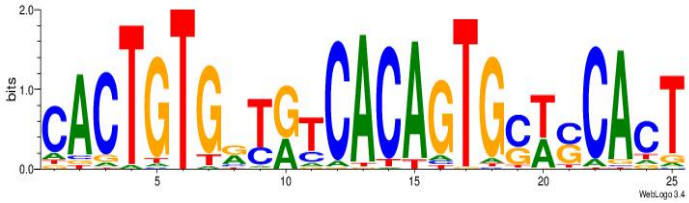
Reverse complement motif Consensus sequence: ACTGTGGTGTCACART



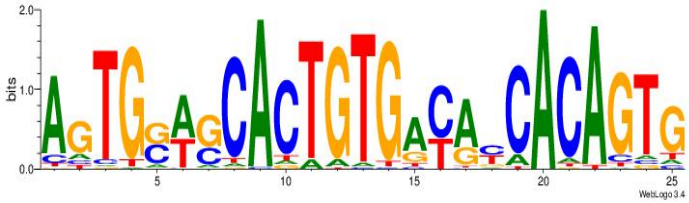
Dataset #: 4
Motif ID: 72
Motif name: CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 3
Number of overlap: 14
Similarity score: 0.065312

Alignment:
AGTGSWSCACTGTGAMAMCACAGTG
---------CWGAGCCAYCTYTC--

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



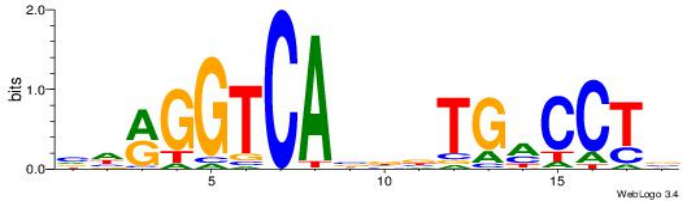
Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG



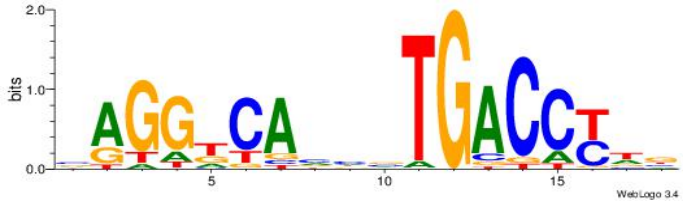
Dataset #:	3
Motif ID:	59
Motif name:	ESR2
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	14
Similarity score:	0.0658518

Alignment:
VHRGGTCABDBTGMCCTB
CWGAGCCAYCTYTC----

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB



Reverse complement motif Consensus sequence:
BAGGYCABHBTGACCKHV

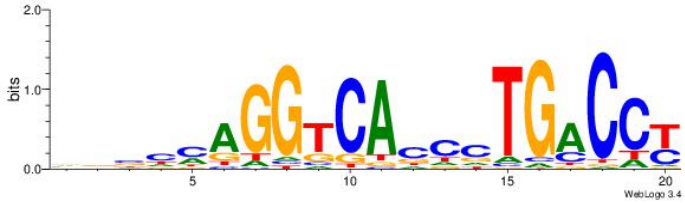


Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	14
Similarity score:	0.0671359

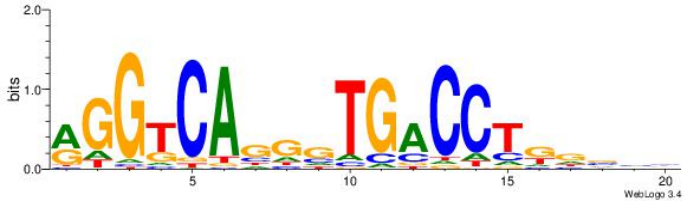
Alignment:

```
MGGTCAGGGTGACCTRDBHV
----CWGAGCCAYCTYTC--
```

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

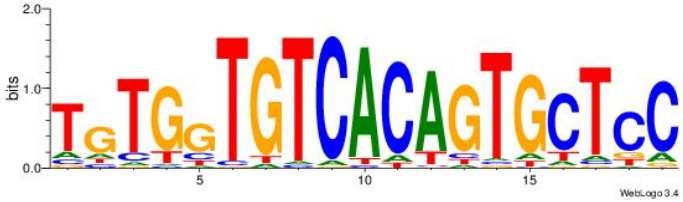


Dataset #:	4
Motif ID:	67
Motif name:	TgTGgTGTCACAGTGCTCC
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	7

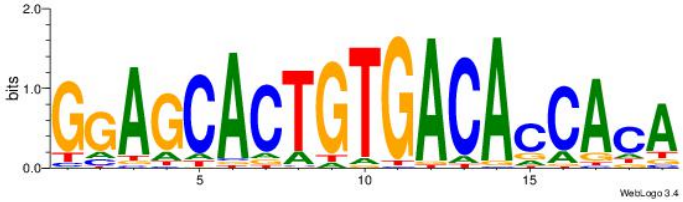
Number of overlap: 13
Similarity score: 0.538291

Alignment:
GGAGCACTGTGACACCACA-
------CWGAGCCAYCTYTC

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA

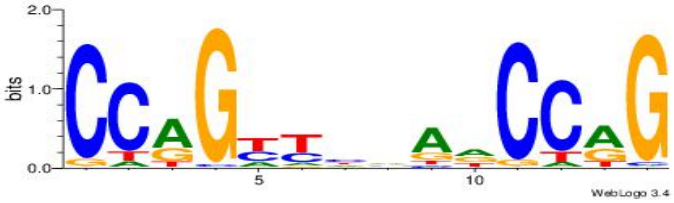


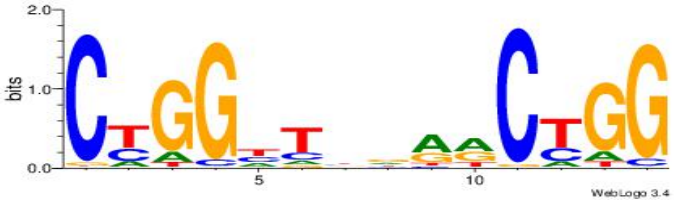
Dataset #: 3
Motif ID: 65
Motif name: Tcfcp2l1
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 2
Number of overlap: 13
Similarity score: 0.560622

Alignment:
-CKGGDTBDMMCTGG
GAKAGKTGGCTCWG-

Original motif Consensus sequence: CCAGYYHVADCCRG

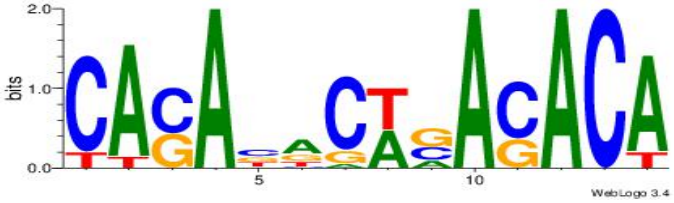
Reverse complement motif Consensus sequence: CKGGDTBDMMCT





Dataset #: 1 **Motif ID: 6** **Motif name: Motif 6**

Original motif Consensus sequence: CASABACWSACACA



Reverse complement motif Consensus sequence: TGTGTSWGTBTST

Best Matches for Motif ID 6 (Highest to Lowest)

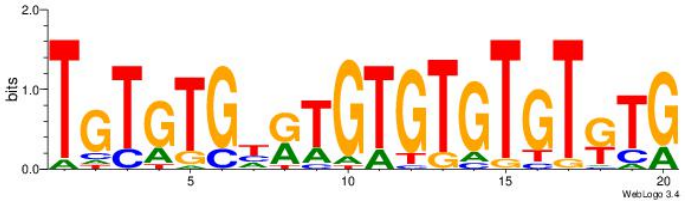
Dataset #:	5
Motif ID:	92
Motif name:	TFM11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	14
Similarity score:	0.0383879

Alignment:

```
TGTGTGDKTGTGTGTGTRTG
TGTGTSWGTBTSTG------
```

Original motif Consensus sequence: CAMACACACACAYDCACACA

Reverse complement motif Consensus sequence: TGTGTGDKTGTGTGTGTRTG

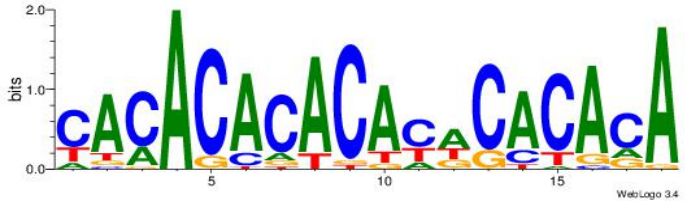


Dataset #:	5
Motif ID:	89
Motif name:	TFM1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	14
Similarity score:	0.0411352

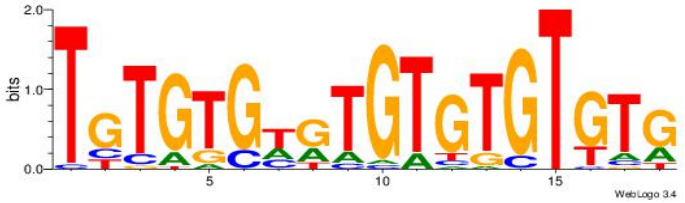
Alignment:

```
TGTGTGWGTGTGTGTGTG
TGTGTSWGTBTSTG----
```

Original motif Consensus sequence: CACACACACACWCACACA



Reverse complement motif Consensus sequence: TGTGTGWGTGTGTGTGTG

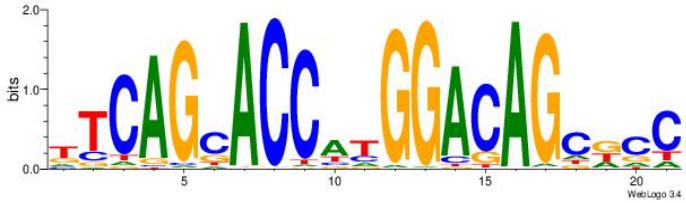


Dataset #:	3
Motif ID:	57
Motif name:	REST
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	14
Similarity score:	0.0803592

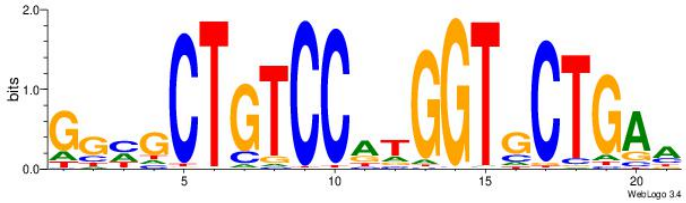
Alignment:

```
GGYGCTGTCCATGGTGCTGAA
-----TGTGTSWGTBTSTG--
```

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA

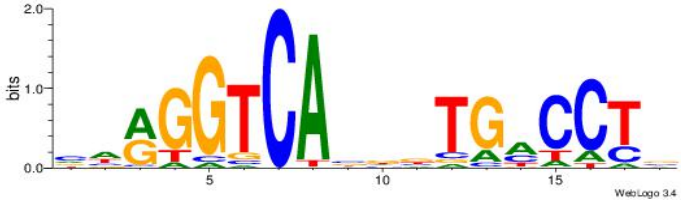


Dataset #:	3
Motif ID:	59
Motif name:	ESR2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	4

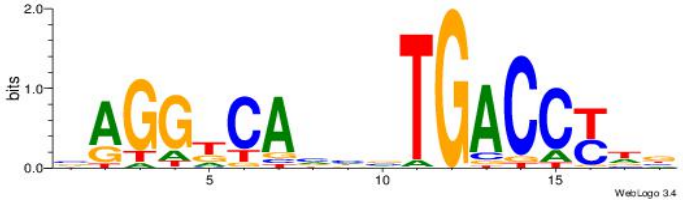
Number of overlap: 14
Similarity score: 0.0865284

Alignment:
VHRGGTCABDBTGMCCTB
-TGTGTSWGTBTSTG---

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB



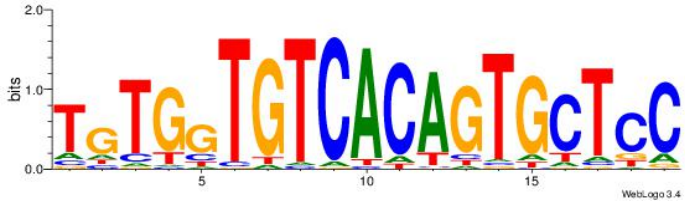
Reverse complement motif Consensus sequence:
BAGGYCABHBTGACCKHV



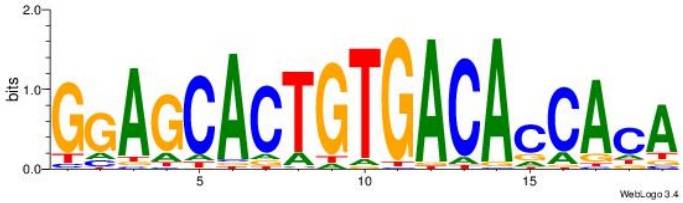
Dataset #: 4
Motif ID: 67
Motif name: TgTGgTGTCACAGTGCTCC
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 4
Number of overlap: 14
Similarity score: 0.0874787

Alignment:
TGTGGTGTCACAGTGCTCC
---TGTGTSWGTBTSTG--

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA

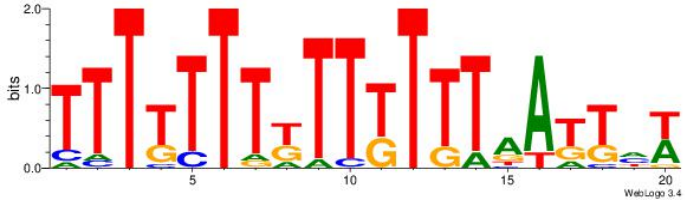


Dataset #:	5
Motif ID:	94
Motif name:	TFM13
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	6
Number of overlap:	14
Similarity score:	0.0913053

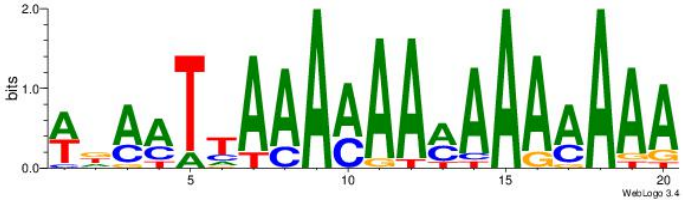
Alignment:

```
TTTTTTTKTTKTTTAATTHW
-TGTGTSWGTBTSTG-----
```

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW



Reverse complement motif Consensus sequence: WHAATTAAARAARAAAAAAA

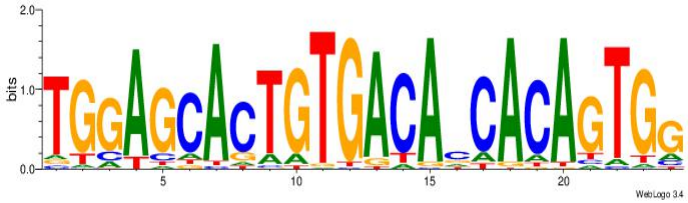


Dataset #:	4
Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	14
Similarity score:	0.0930634

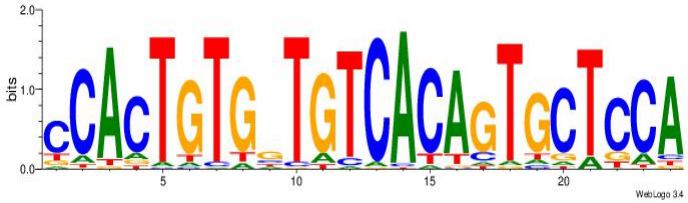
Alignment:

```
CCACTGTGVTGTCACAGTGCTCCA
-------TGTGTSWGTBTSTG---
```

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA



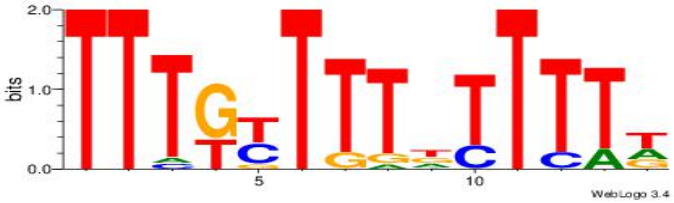
Dataset #:	1
Motif ID:	4
Motif name:	Motif 4
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1

Number of overlap: 14
Similarity score: 0.0933886

Alignment:
HAAAAHAAARMAAA
CASABACWSACACA

Original motif Consensus sequence: HAAAAHAAARMAAA

Reverse complement motif Consensus sequence: TTTRKTTTHTTTTH

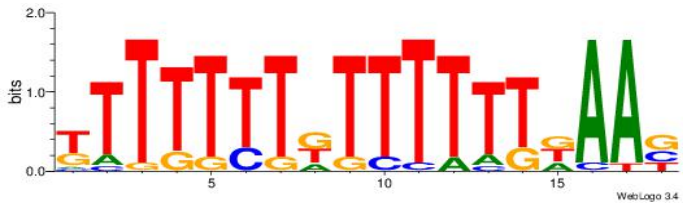


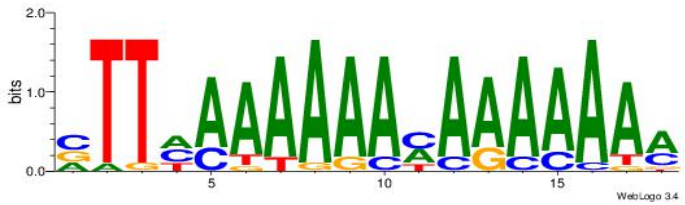
Dataset #: 5
Motif ID: 91
Motif name: TFM3
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 1
Number of overlap: 14
Similarity score: 0.0935906

Alignment:
KTTTTTTKTTTTTTDAAB
TGTGTSWGTBTSTG----

Original motif Consensus sequence: KTTTTTTKTTTTTTDAAB

Reverse complement motif Consensus sequence:
BTTHAAAAAAYAAAAAAR



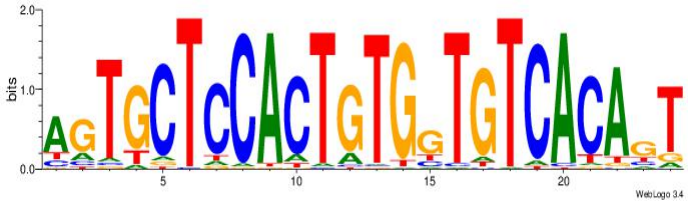


Dataset #:	4
Motif ID:	77
Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	11
Number of overlap:	14
Similarity score:	0.0939701

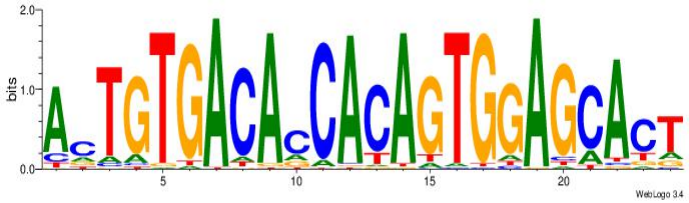
Alignment:

```
ACTGTGACACCACAGTGGAGCACT
----------CASABACWSACACA
```

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT



Dataset #: 1 Motif ID: 7 Motif name: Motif 7

Original motif Consensus sequence: AAAATKCTATT

Reverse complement motif Consensus sequence: AATAGYATTTT

Best Matches for Motif ID 7 (Highest to Lowest)

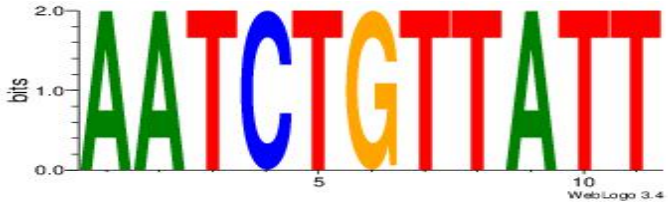
Dataset #:	1
Motif ID:	25
Motif name:	Motif 25
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0795455

Alignment:

```
AATCTGTTATT
AAAATKCTATT
```

Original motif Consensus sequence: AATAACAGATT

Reverse complement motif Consensus sequence: AATCTGTTATT



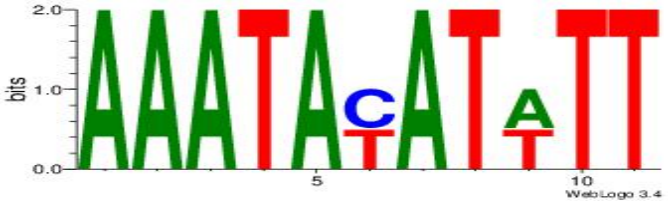
Dataset #:	1
Motif ID:	13
Motif name:	Motif 13
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0795455

Alignment:

```
AAATAKATWTT
AAAATKCTATT
```

Original motif Consensus sequence: AAWATRTATTT

Reverse complement motif Consensus sequence: AAATAKATWTT

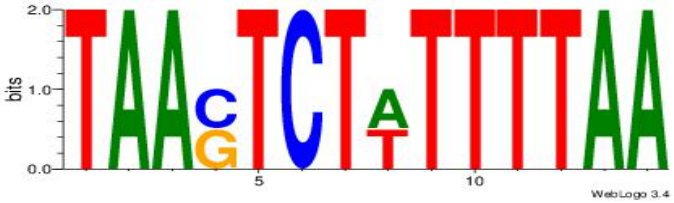


Dataset #:	1
Motif ID:	45
Motif name:	Motif 45
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	11

Similarity score: 0.0909091

Alignment:
TAASTCTWTTTTAA
-AATAGYATTTT--

Original motif Consensus sequence: TAASTCTWTTTTAA



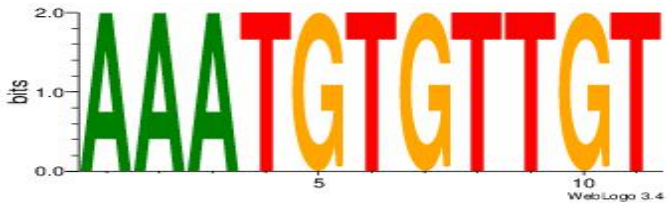
Reverse complement motif Consensus sequence: TTAAAAWAGASTT

Dataset #: 1
Motif ID: 12
Motif name: Motif 12
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 1
Number of overlap: 11
Similarity score: 0.102273

Alignment:
AAATGTGTTGT
AATAGYATTTT

Original motif Consensus sequence: ACAACACATTT

Reverse complement motif Consensus sequence: AAATGTGTTGT

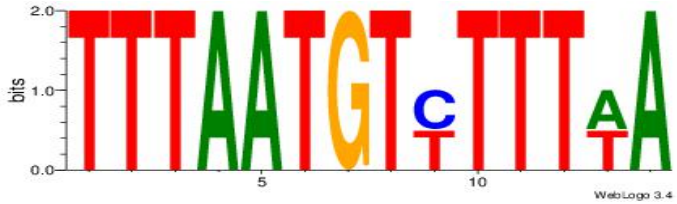


Dataset #:	1
Motif ID:	33
Motif name:	Motif 33
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	11
Similarity score:	0.102273

Alignment:

```
TWAAAKACATTAAA
AAAATKCTATT---
```

Original motif Consensus sequence: TTTAATGTYTTTWA



Reverse complement motif Consensus sequence: TWAAAKACATTAA

Dataset #:	1
Motif ID:	15

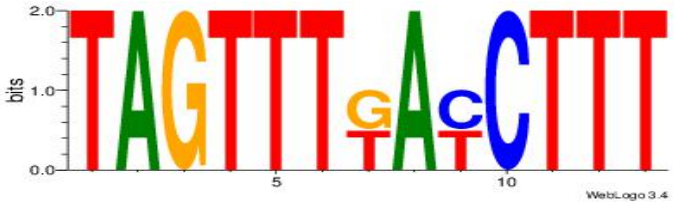
Motif name:	Motif 15
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	11
Similarity score:	0.102273

Alignment:

```
TAGTTTYAKCTTT
-AATAGYATTTT-
```

Original motif Consensus sequence: AAAGRTMAAACTA

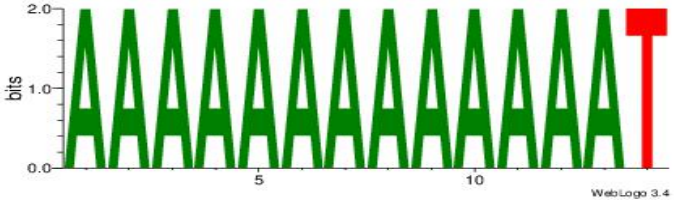
Reverse complement motif Consensus sequence: TAGTTTYAKCTTT



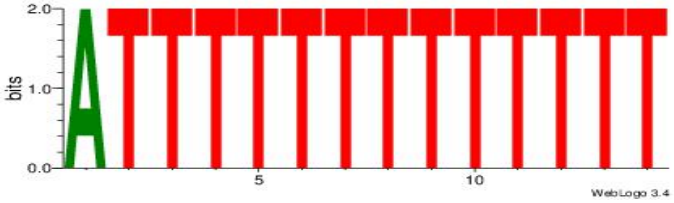
Dataset #:	2
Motif ID:	49
Motif name:	Motif 49
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.102273

Alignment:
ATTTTTTTTTTTTT
AATAGYATTTT---

Original motif Consensus sequence: AAAAAAAAAAAAAT



Reverse complement motif Consensus sequence: ATTTTTTTTTTTTT

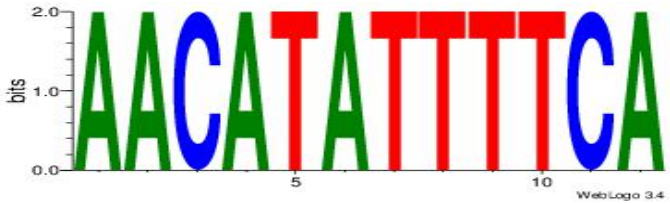


Dataset #:	1
Motif ID:	9
Motif name:	Motif 9
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	11
Similarity score:	0.102273

Alignment:
TGAAAATATGTT
-AAAATKCTATT

Original motif Consensus sequence: AACATATTTTCA

Reverse complement motif Consensus sequence: TGAAAATATGTT

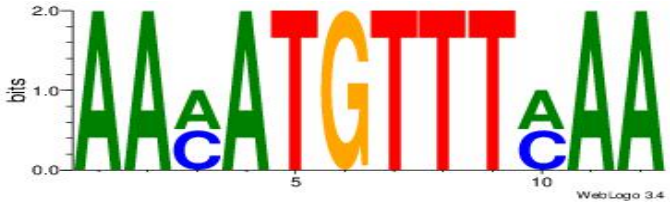


Dataset #:	1
Motif ID:	11
Motif name:	Motif 11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	11
Similarity score:	0.113636

Alignment:

```
TTYAAACATYTT
-AATAGYATTTT
```

Original motif Consensus sequence: AAMATGTTTMAA



Reverse complement motif Consensus sequence: TTYAAACATYTT

Dataset #:	1
Motif ID:	10

Motif name:	Motif 10
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.113636

Alignment:

```
AAAMATTGTTT
AAAATKCTATT
```

Original motif Consensus sequence: AAAMATTGTTT

Reverse complement motif Consensus sequence: AAACAATYTTT

Dataset #: 1 Motif ID: 8 Motif name: Motif 8

Original motif Consensus sequence: TGAAAATSCTT

Reverse complement motif Consensus sequence: AAGSATTTTCA

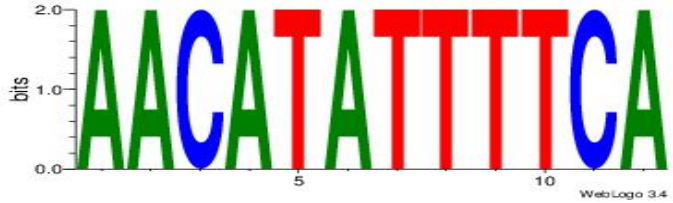
Best Matches for Motif ID 8 (Highest to Lowest)

Dataset #:	1
Motif ID:	9
Motif name:	Motif 9
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	11
Similarity score:	0.0681818

Alignment:

```
TGAAAATATGTT
TGAAAATSCTT-
```

Original motif Consensus sequence: AACATATTTTCA



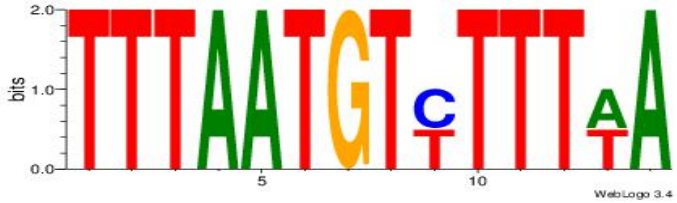
Reverse complement motif Consensus sequence: TGAAAATATGTT

Dataset #:	1
Motif ID:	33
Motif name:	Motif 33
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	4
Number of overlap:	11

Similarity score: 0.0909091

Alignment:
TTTAATGTYTTTWA
---AAGSATTTTCA

Original motif Consensus sequence: TTTAATGTYTTTWA



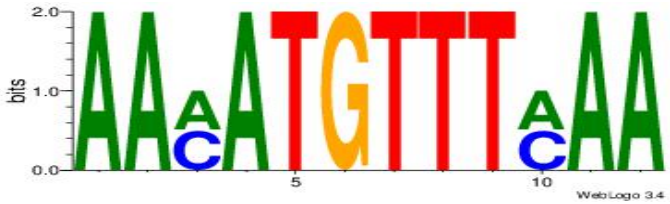
Reverse complement motif Consensus sequence: TWAAAKACATTAA

Dataset #: 1
Motif ID: 11
Motif name: Motif 11
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 1
Number of overlap: 11
Similarity score: 0.102273

Alignment:
AAMATGTTTMAA
AAGSATTTTCA-

Original motif Consensus sequence: AAMATGTTTMAA

Reverse complement motif Consensus sequence: TTYAAACATYTT



Dataset #:	1
Motif ID:	10
Motif name:	Motif 10
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.102273

Alignment:

```
AAACAATYTTT
TGAAAATSCTT
```

Original motif Consensus sequence: AAAMATTGTTT

Reverse complement motif Consensus sequence: AAACAATYTTT

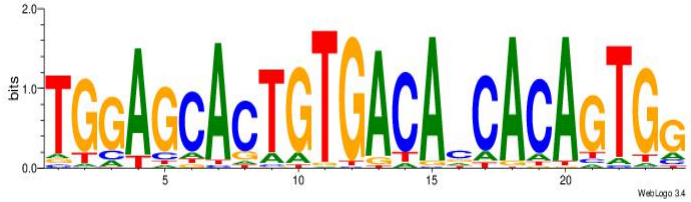
Dataset #:	4
Motif ID:	73

Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	11
Similarity score:	0.111179

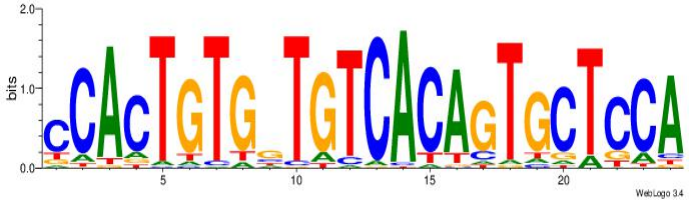
Alignment:

```
TGGAGCACTGTGACAVCACAGTGG
--AAGSATTTTCA-----------
```

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



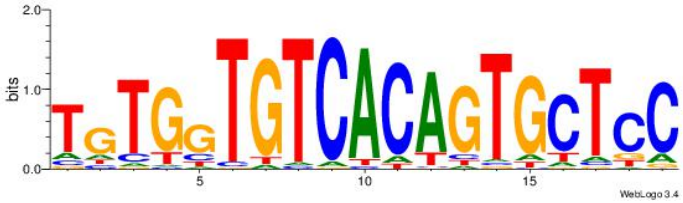
Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA



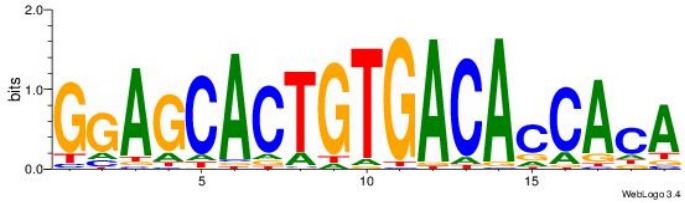
Dataset #:	4
Motif ID:	67
Motif name:	TgTGgTGTCACAGTGCTCC
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	8
Number of overlap:	11
Similarity score:	0.113005

Alignment:
TGTGGTGTCACAGTGCTCC
-------TGAAAATSCTT-

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA

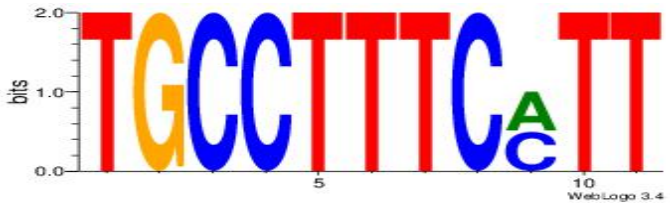


Dataset #:	1
Motif ID:	43
Motif name:	Motif 43
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.113636

Alignment:
TGCCTTTCYTT
TGAAAATSCTT

Original motif Consensus sequence: AAKGAAAGGCA

Reverse complement motif Consensus sequence: TGCCTTTCYTT



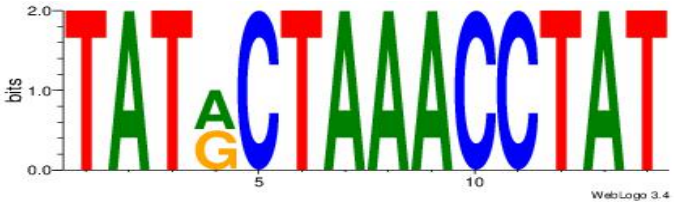
Dataset #:	1
Motif ID:	46
Motif name:	Motif 46
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	11
Similarity score:	0.113636

Alignment:

```
TATKCTAAACCTAT
--TGAAAATSCTT-
```

Original motif Consensus sequence: ATAGGTTTAGYATA

Reverse complement motif Consensus sequence: TATKCTAAACCTAT



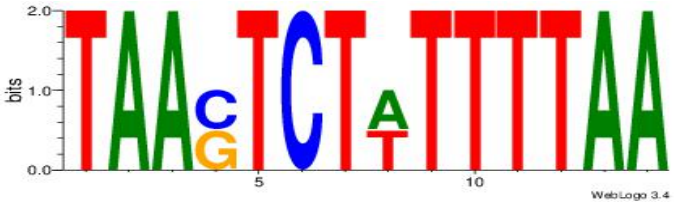
Dataset #:	1
Motif ID:	45

Motif name:	Motif 45
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	11
Similarity score:	0.113636

Alignment:

```
TTAAAAWAGASTTA
--TGAAAATSCTT-
```

Original motif Consensus sequence: TAASTCTWTTTTAA



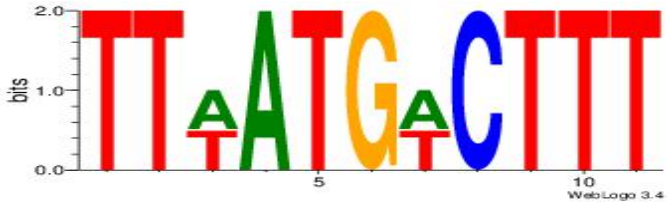
Reverse complement motif Consensus sequence: TTAAAAWAGASTT

Dataset #:	1
Motif ID:	24
Motif name:	Motif 24
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.125

Alignment:
TTWATGWCTTT
TGAAAATSCTT

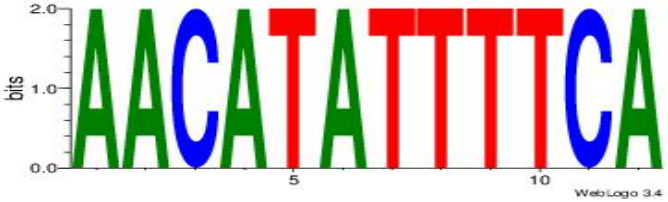
Original motif Consensus sequence: AAAGWCATWAA

Reverse complement motif Consensus sequence: TTWATGWCTTT



Dataset #: 1 Motif ID: 9 Motif name: Motif 9

Original motif Consensus sequence: AACATATTTTCA



Reverse complement motif Consensus sequence: TGAAAATATGTT

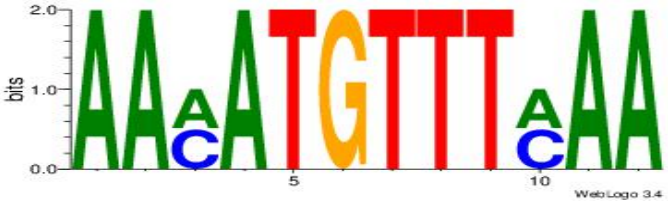
Best Matches for Motif ID 9 (Highest to Lowest)

Dataset #:	1
Motif ID:	11
Motif name:	Motif 11
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1

Number of overlap: 12
Similarity score: 0.0729167

Alignment:
AAMATGTTTMAA
AACATATTTTCA

Original motif Consensus sequence: AAMATGTTTMAA



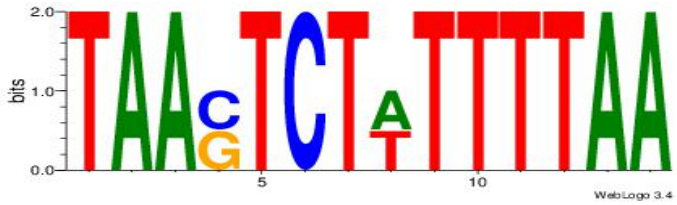
Reverse complement motif Consensus sequence: TTYAAACATYTT

Dataset #: 1
Motif ID: 45
Motif name: Motif 45
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 1
Number of overlap: 12
Similarity score: 0.09375

Alignment:
TAASTCTWTTTTAA
--AACATATTTTCA

Original motif Consensus sequence: TAASTCTWTTTTAA

Reverse complement motif Consensus sequence: TTAAAAWAGASTT

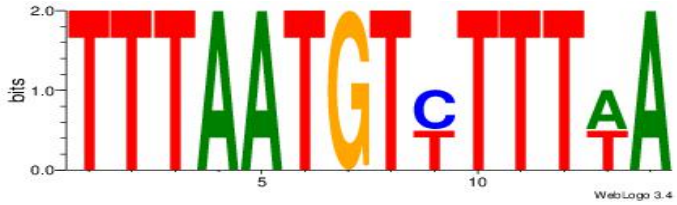


Dataset #:	1
Motif ID:	33
Motif name:	Motif 33
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	12
Similarity score:	0.104167

Alignment:

```
TWAAAKACATTAAA
-AACATATTTTCA-
```

Original motif Consensus sequence: TTTAATGTYTTTWA



Reverse complement motif Consensus sequence: TWAAAKACATTAA

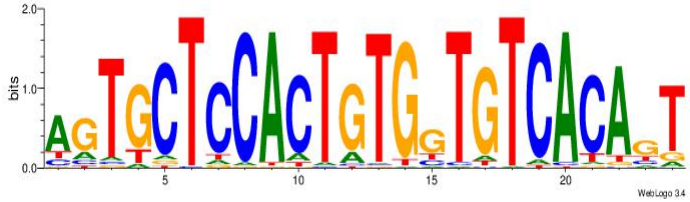
Dataset #:	4
Motif ID:	77

Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	9
Number of overlap:	12
Similarity score:	0.120305

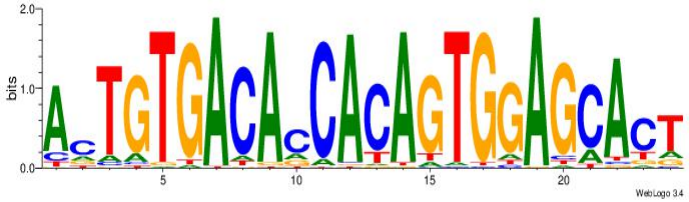
Alignment:

```
AGTGCTCCACTGTGGTGTCACAGT
--------AACATATTTTCA----
```

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



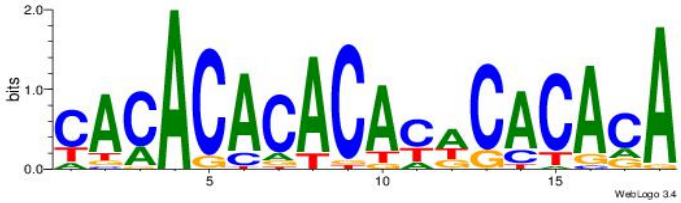
Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT



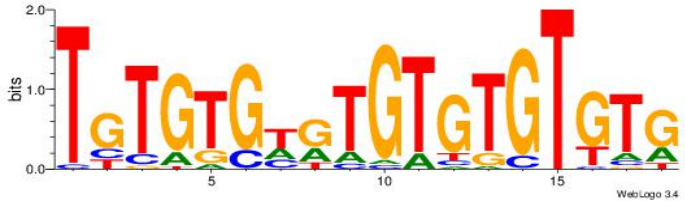
Dataset #:	5
Motif ID:	89
Motif name:	TFM1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	5
Number of overlap:	12
Similarity score:	0.12128

Alignment:
CACACACACACWCACACA
--AACATATTTTCA----

Original motif Consensus sequence: CACACACACACWCACACA



Reverse complement motif Consensus sequence:
TGTGTGWGTGTGTGTGTG

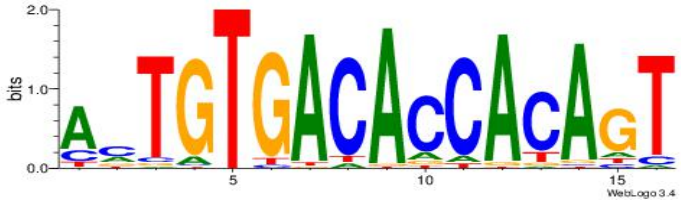


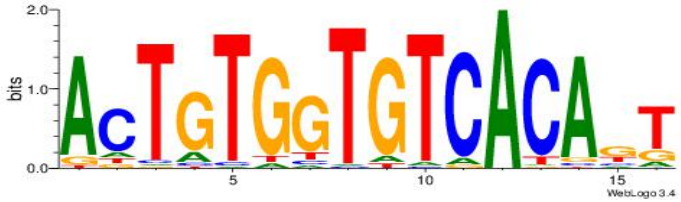
Dataset #:	4
Motif ID:	71
Motif name:	AmTGTGACACCACAGT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	5
Number of overlap:	12
Similarity score:	0.12207

Alignment:
AMTGTGACACCACAGT
----TGAAAATATGTT

Original motif Consensus sequence: AMTGTGACACCACAGT

Reverse complement motif Consensus sequence:
ACTGTGGTGTCACART

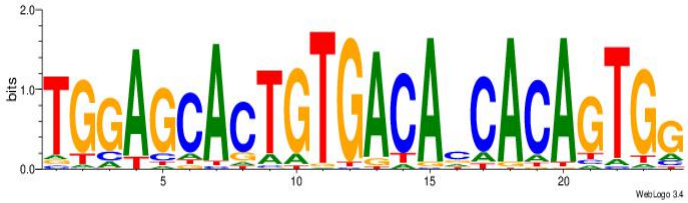




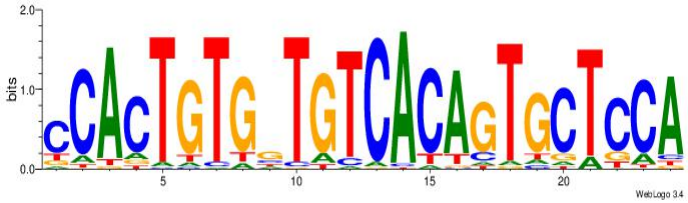
Dataset #: 4
Motif ID: 73
Motif name: TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 11
Number of overlap: 12
Similarity score: 0.122466

Alignment:
CCACTGTGVTGTCACAGTGCTCCA
--AACATATTTTCA----------

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA



Dataset #: 5

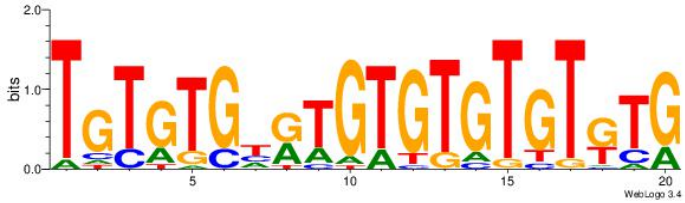
Motif ID:	92
Motif name:	TFM11
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	5
Number of overlap:	12
Similarity score:	0.123397

Alignment:

```
CAMACACACACAYDCACACA
----AACATATTTTCA----
```

Original motif Consensus sequence: CAMACACACACAYDCACACA

Reverse complement motif Consensus sequence: TGTGTGDKTGTGTGTGTRTG

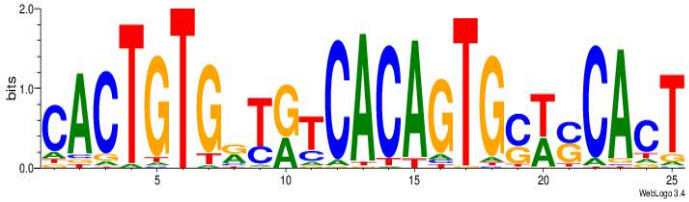


Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	12

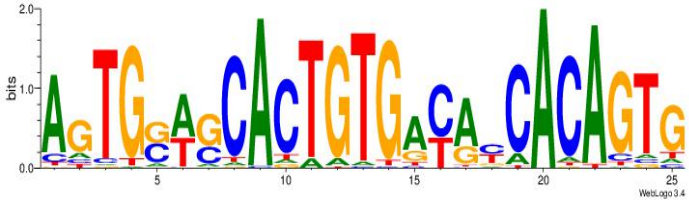
Similarity score: 0.124008

Alignment:
AGTGSWSCACTGTGAMAMCACAGTG
----------TGAAAATATGTT-

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG

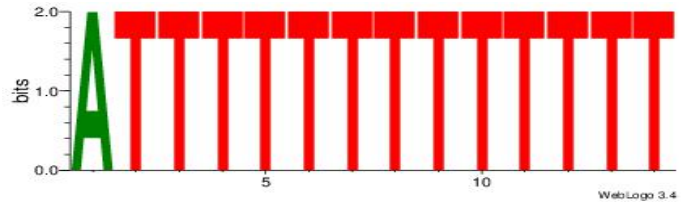


Dataset #: 2
Motif ID: 49
Motif name: Motif 49
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 3
Number of overlap: 12
Similarity score: 0.125

Alignment:
ATTTTTTTTTTTTT
AACATATTTTCA--

Original motif Consensus sequence: AAAAAAAAAAAAAT

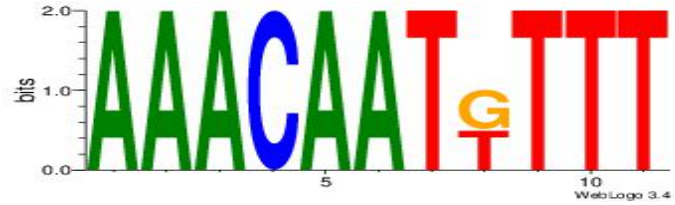
Reverse complement motif Consensus sequence: ATTTTTTTTTTTTT



Dataset #: 1 Motif ID: 10 Motif name: Motif 10

Original motif Consensus sequence: AAAMATTGTTT

Reverse complement motif Consensus sequence: AAACAATYTTT



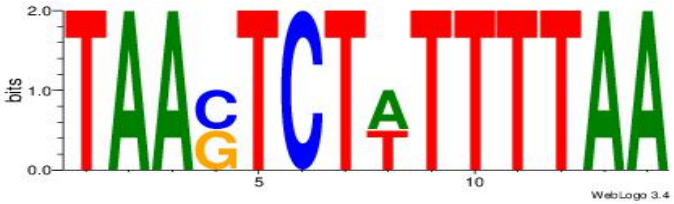
Best Matches for Motif ID 10 (Highest to Lowest)

Dataset #:	1
Motif ID:	45
Motif name:	Motif 45
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0700758

Alignment:

```
TTAAAAWAGASTTA
---AAAMATTGTTT
```

Original motif Consensus sequence: TAASTCTWTTTTAA



Reverse complement motif Consensus sequence: TTAAAAWAGASTT

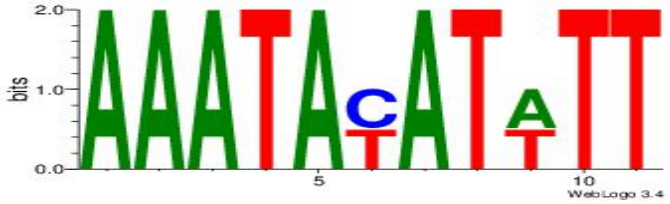
Dataset #:	1
Motif ID:	13
Motif name:	Motif 13
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0700758

Alignment:

```
AAWATRTATTT
AAAMATTGTTT
```

Original motif Consensus sequence: AAWATRTATTT

Reverse complement motif Consensus sequence: AAATAKATWTT

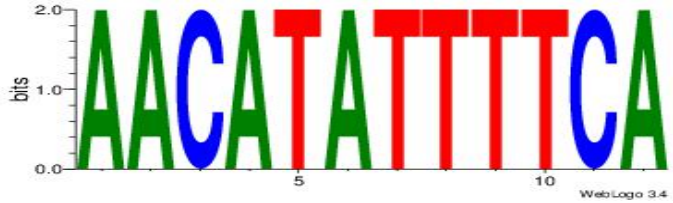


Dataset #:	1
Motif ID:	9
Motif name:	Motif 9
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	11
Similarity score:	0.0814394

Alignment:

```
TGAAAATATGTT
AAAMATTGTTT-
```

Original motif Consensus sequence: AACATATTTTCA



Reverse complement motif Consensus sequence: TGAAAATATGTT

Dataset #:	1
Motif ID:	8
Motif name:	Motif 8
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11

Similarity score: 0.0814394

Alignment:
AAGSATTTTCA
AAAMATTGTTT

Original motif Consensus sequence: TGAAAATSCTT

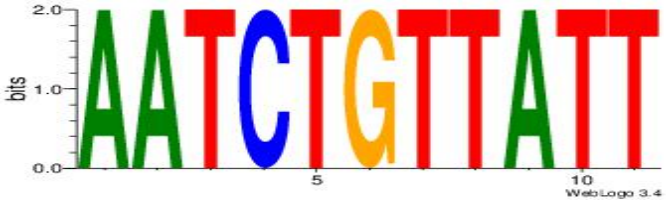
Reverse complement motif Consensus sequence: AAGSATTTTCA

Dataset #: 1
Motif ID: 25
Motif name: Motif 25
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 1
Number of overlap: 11
Similarity score: 0.0814394

Alignment:
AATAACAGATT
AAAMATTGTTT

Original motif Consensus sequence: AATAACAGATT

Reverse complement motif Consensus sequence: AATCTGTTATT



Dataset #:	1
Motif ID:	7
Motif name:	Motif 7
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.092803

Alignment:

```
AAAATKCTATT
AAAMATTGTTT
```

Original motif Consensus sequence: AAAATKCTATT

Reverse complement motif Consensus sequence: AATAGYATTTT

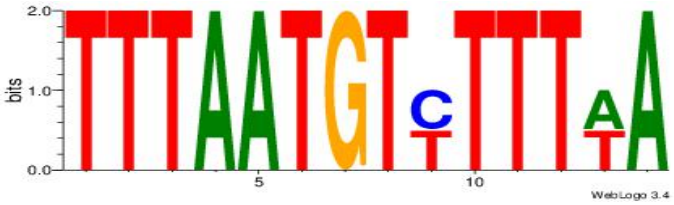
Dataset #:	1
Motif ID:	33

Motif name:	Motif 33
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	11
Similarity score:	0.092803

Alignment:

```
TTTAATGTYTTTWA
--AAAMATTGTTT-
```

Original motif Consensus sequence: TTTAATGTYTTTWA

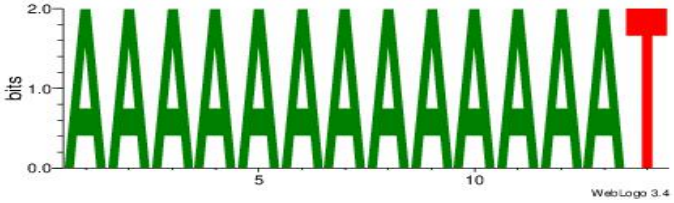


Reverse complement motif Consensus sequence: TWAAAKACATTAA

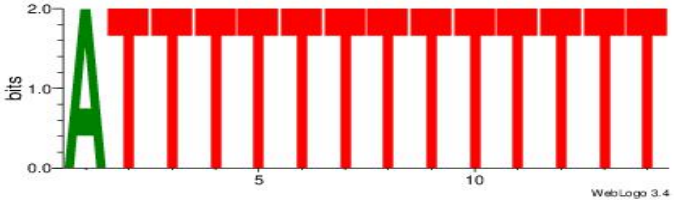
Dataset #:	2
Motif ID:	49
Motif name:	Motif 49
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.092803

Alignment:
AAAAAAAAAAAAAT
---AAACAATYTTT

Original motif Consensus sequence: AAAAAAAAAAAAAT



Reverse complement motif Consensus sequence: ATTTTTTTTTTTTT

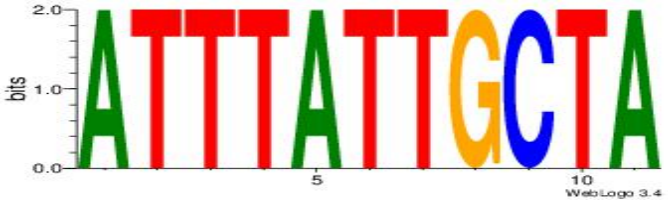


Dataset #:	1
Motif ID:	29
Motif name:	Motif 29
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.092803

Alignment:
ATTTATTGCTA
AAAMATTGTTT

Original motif Consensus sequence: ATTTATTGCTA

Reverse complement motif Consensus sequence: TAGCAATAAAT



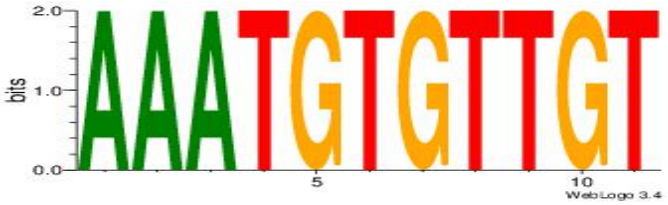
Dataset #:	1
Motif ID:	12
Motif name:	Motif 12
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.092803

Alignment:

```
AAATGTGTTGT
AAAMATTGTTT
```

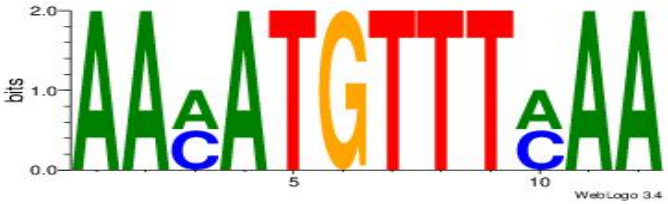
Original motif Consensus sequence: ACAACACATTT

Reverse complement motif Consensus sequence: AAATGTGTTGT



Dataset #: 1 Motif ID: 11 Motif name: Motif 11

Original motif Consensus sequence: AAMATGTTTMAA



Reverse complement motif Consensus sequence: TTYAAACATYTT

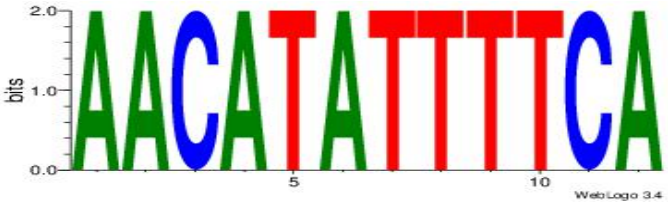
Best Matches for Motif ID 11 (Highest to Lowest)

Dataset #:	1
Motif ID:	9
Motif name:	Motif 9
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	12
Similarity score:	0.0479167

Alignment:

```
AACATATTTTCA
AAMATGTTTMAA
```

Original motif Consensus sequence: AACATATTTTCA



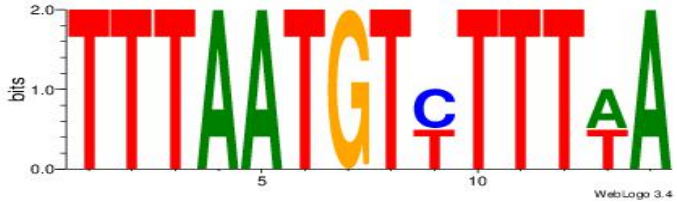
Reverse complement motif Consensus sequence: TGAAAATATGTT

Dataset #:	1
Motif ID:	33
Motif name:	Motif 33
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	12
Similarity score:	0.06875

Alignment:

```
TTTAATGTYTTTWA
TTYAAACATYTT--
```

Original motif Consensus sequence: TTTAATGTYTTTWA



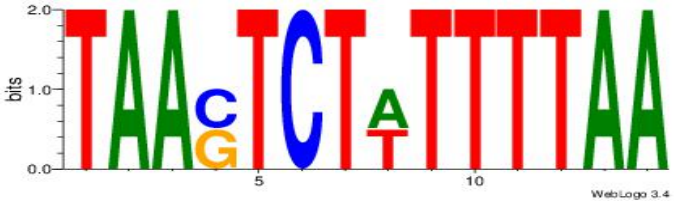
Reverse complement motif Consensus sequence: TWAAAKACATTAA

Dataset #:	1
Motif ID:	45
Motif name:	Motif 45
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	12

Similarity score: 0.0791667

Alignment:
TTAAAAWAGASTTA
TTYAAACATYTT--

Original motif Consensus sequence: TAASTCTWTTTTAA



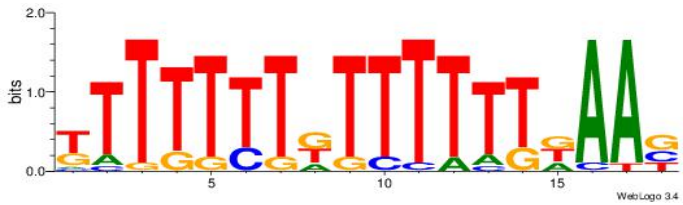
Reverse complement motif Consensus sequence: TTAAAAWAGASTT

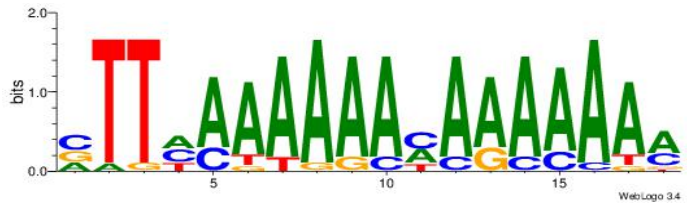
Dataset #: 5
Motif ID: 91
Motif name: TFM3
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 6
Number of overlap: 12
Similarity score: 0.0830729

Alignment:
BTTHAAAAAAYAAAAAAR
-TTYAAACATYTT-----

Original motif Consensus sequence: KTTTTTTKTTTTTTDAAB

Reverse complement motif Consensus sequence: BTTHAAAAAAYAAAAAAR

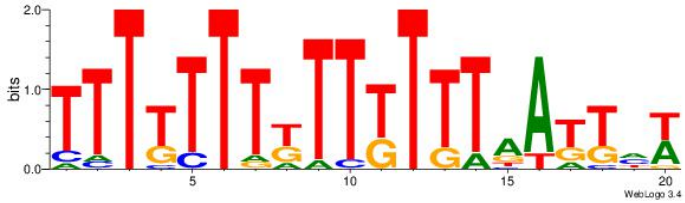




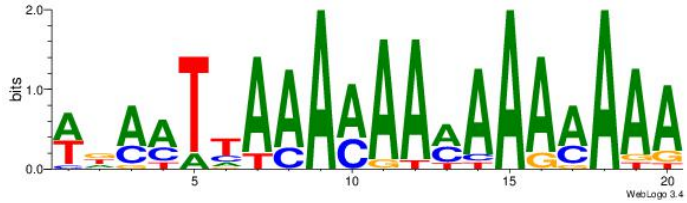
Dataset #: 5
Motif ID: 94
Motif name: TFM13
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 8
Number of overlap: 12
Similarity score: 0.0970238

Alignment:
WHAATTAAARAARAAAAAAA
-------AAMATGTTTMAA-

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW



Reverse complement motif Consensus sequence:
WHAATTAAARAARAAAAAAA



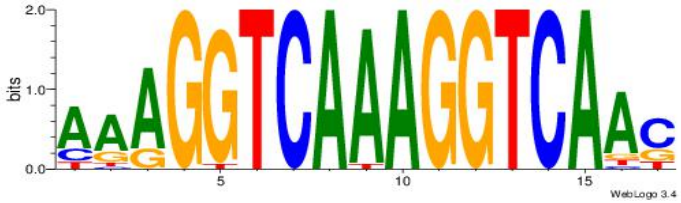
Dataset #: 3

Motif ID:	60
Motif name:	NR1H2RXRA
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	5
Number of overlap:	12
Similarity score:	0.0983333

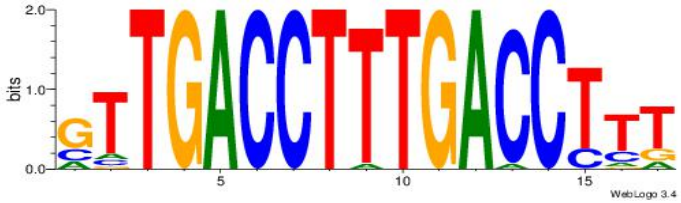
Alignment:

```
AAAGGTCAAAGGTCAAC
----TTYAAACATYTT-
```

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC



Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT



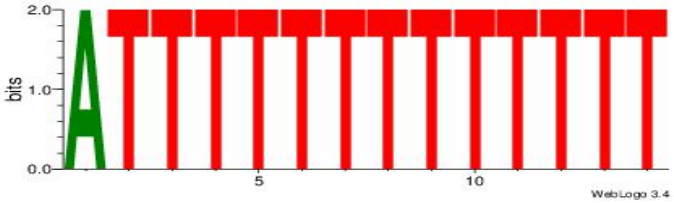
Dataset #:	2
Motif ID:	49
Motif name:	Motif 49
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	12

Similarity score: 0.1

Alignment:
AAAAAAAAAAAAAT
-AAMATGTTTMAA-

Original motif Consensus sequence: AAAAAAAAAAAAAT

Reverse complement motif Consensus sequence: ATTTTTTTTTTTTT

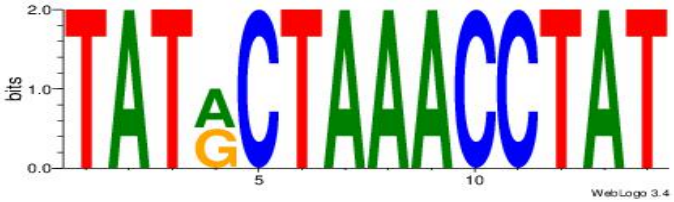


Dataset #:	1
Motif ID:	46
Motif name:	Motif 46
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	11
Similarity score:	0.565909

Alignment:
TATKCTAAACCTAT-
---TTYAAACATYTT

Original motif Consensus sequence: ATAGGTTTAGYATA

Reverse complement motif Consensus sequence: TATKCTAAACCTAT



Dataset #:	1
Motif ID:	13
Motif name:	Motif 13
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.565909

Alignment:

```
AAWATRTATTT-
AAMATGTTTMAA
```

Original motif Consensus sequence: AAWATRTATTT

Reverse complement motif Consensus sequence: AAATAKATWTT

Dataset #:	1
Motif ID:	12

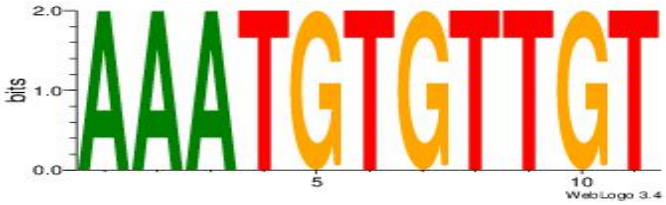
Motif name:	Motif 12
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.577273

Alignment:

```
-AAATGTGTTGT
AAMATGTTTMAA
```

Original motif Consensus sequence: ACAACACATTT

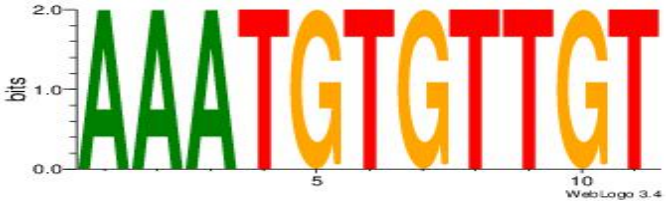
Reverse complement motif Consensus sequence: AAATGTGTTGT



Dataset #: 1 Motif ID: 12 Motif name: Motif 12

Original motif Consensus sequence: ACAACACATTT

Reverse complement motif Consensus sequence: AAATGTGTTGT



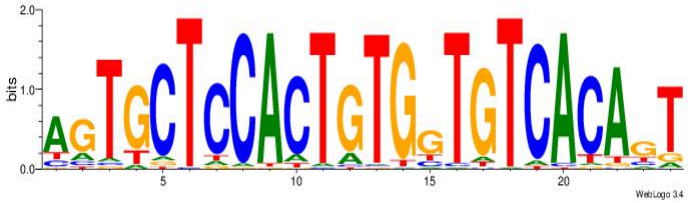
Best Matches for Motif ID 12 (Highest to Lowest)

Dataset #:	4
Motif ID:	77
Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	8
Number of overlap:	11
Similarity score:	0.074904

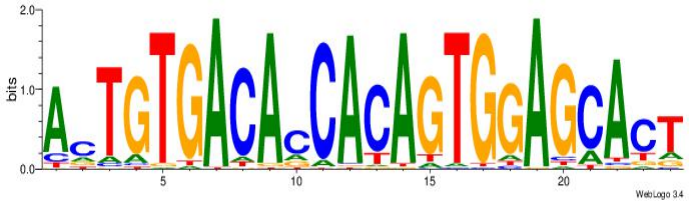
Alignment:

```
AGTGCTCCACTGTGGTGTCACAGT
-------AAATGTGTTGT------
```

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT

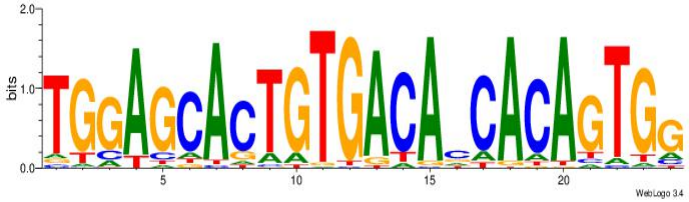


Dataset #:	4
Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2

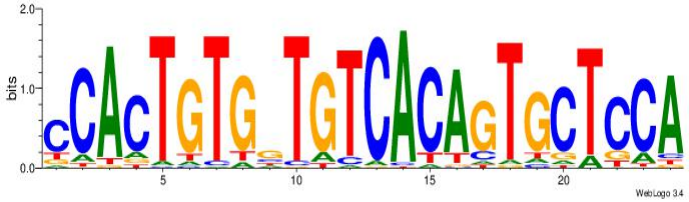
Number of overlap: 11
Similarity score: 0.0795455

Alignment:
TGGAGCACTGTGACAVCACAGTGG
----------ACAACACATTT-

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA



Dataset #: 1
Motif ID: 33
Motif name: Motif 33
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 2
Number of overlap: 11
Similarity score: 0.0795455

Alignment:
TWAAAKACATTAAA
-ACAACACATTT--

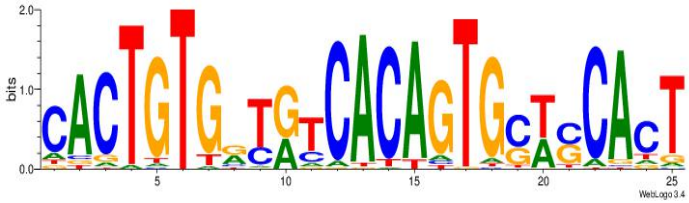
Original motif Consensus sequence: TTTAATGTYTTTWA

Reverse complement motif Consensus sequence: TWAAAKACATTAA

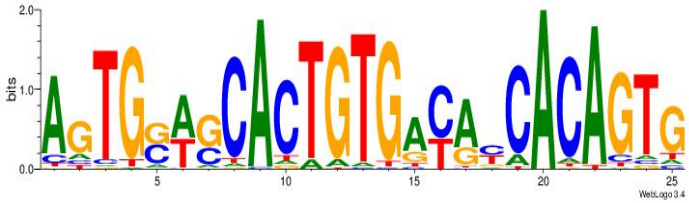
Dataset #: 4
Motif ID: 72
Motif name: CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 1
Number of overlap: 11
Similarity score: 0.0891053

Alignment:
AGTGSWSCACTGTGAMAMCACAGTG
----------ACAACACATTT

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG



Dataset #: 1

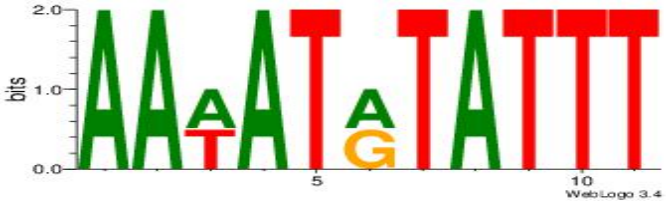
Motif ID:	13
Motif name:	Motif 13
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.0909091

Alignment:

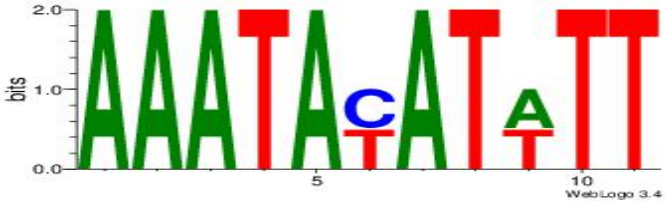
AAWATRTATTT

ACAACACATTT

Original motif Consensus sequence: AAWATRTATTT



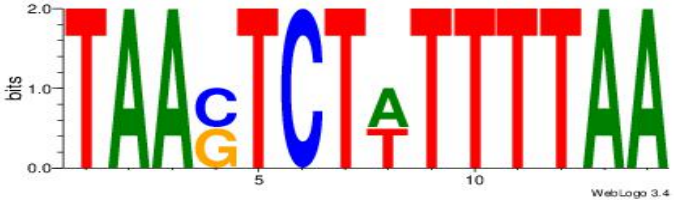
Reverse complement motif Consensus sequence: AAATAKATWTT



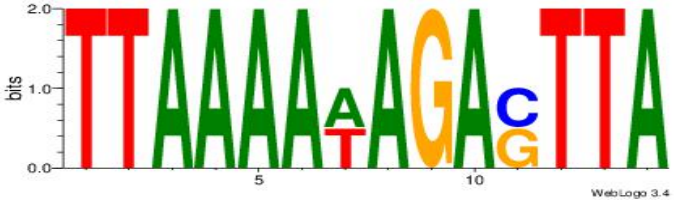
Dataset #:	1
Motif ID:	45
Motif name:	Motif 45
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	11
Similarity score:	0.0909091

Alignment:
TTAAAAWAGASTTA
--ACAACACATTT-

Original motif Consensus sequence: TAASTCTWTTTTAA



Reverse complement motif Consensus sequence: TTAAAAWAGASTT



Dataset #:	1
Motif ID:	7
Motif name:	Motif 7
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.102273

Alignment:
AATAGYATTTT
AAATGTGTTGT

Original motif Consensus sequence: AAAATKCTATT

Reverse complement motif Consensus sequence: AATAGYATTTT

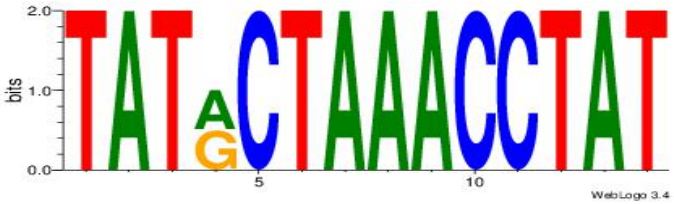
Dataset #:	1
Motif ID:	46
Motif name:	Motif 46
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	4
Number of overlap:	11
Similarity score:	0.102273

Alignment:

```
ATAGGTTTAGYATA
AAATGTGTTGT---
```

Original motif Consensus sequence: ATAGGTTTAGYATA

Reverse complement motif Consensus sequence: TATKCTAAACCTAT



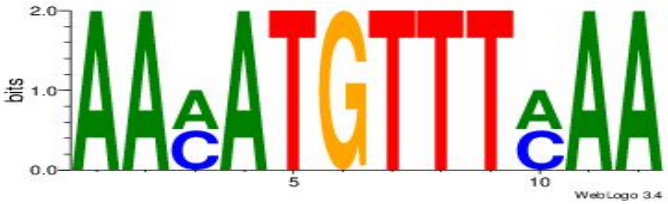
Dataset #:	1
Motif ID:	11

Motif name:	Motif 11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.102273

Alignment:

```
AAMATGTTTMAA
AAATGTGTTGT-
```

Original motif Consensus sequence: AAMATGTTTMAA

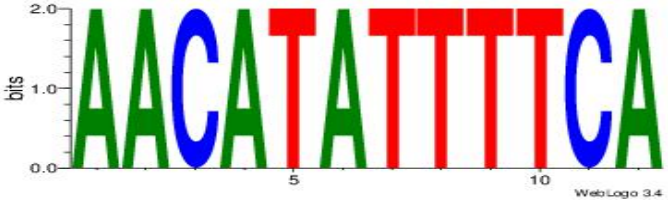


Reverse complement motif Consensus sequence: TTYAAACATYTT

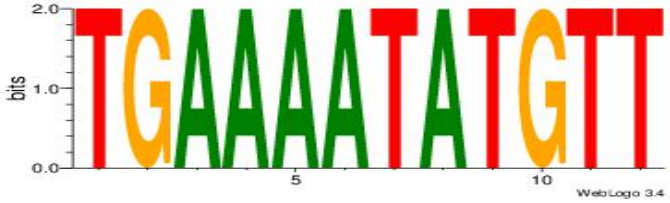
Dataset #:	1
Motif ID:	9
Motif name:	Motif 9
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.113636

Alignment:
AACATATTTTCA
AAATGTGTTGT-

Original motif Consensus sequence: AACATATTTTCA



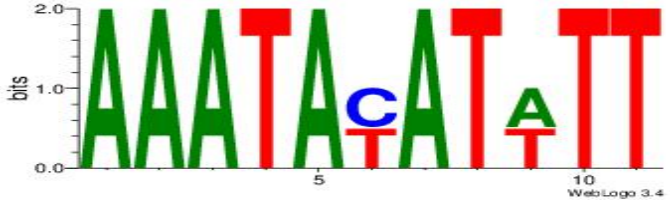
Reverse complement motif Consensus sequence: TGAAAATATGTT



Dataset #: 1 Motif ID: 13 Motif name: Motif 13

Original motif Consensus sequence: AAWATRTATTT

Reverse complement motif Consensus sequence: AAATAKATWTT



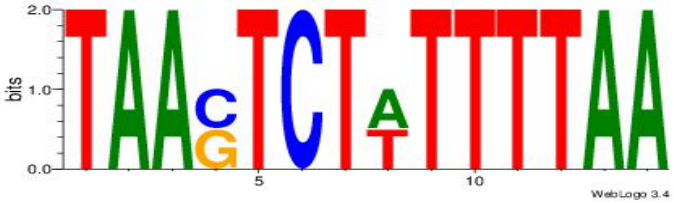
Best Matches for Motif ID 13 (Highest to Lowest)

Dataset #:	1
Motif ID:	45
Motif name:	Motif 45
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2

Number of overlap: 11
Similarity score: 0.0795455

Alignment:
TTAAAAWAGASTTA
--AAWATRTATTT-

Original motif Consensus sequence: TAASTCTWTTTTAA



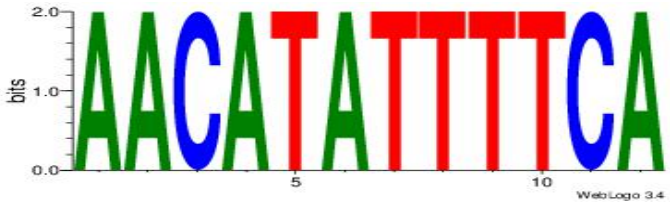
Reverse complement motif Consensus sequence: TTAAAAWAGASTT

Dataset #: 1
Motif ID: 9
Motif name: Motif 9
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 2
Number of overlap: 11
Similarity score: 0.0795455

Alignment:
TGAAAATATGTT
-AAATAKATWTT

Original motif Consensus sequence: AACATATTTTCA

Reverse complement motif Consensus sequence: TGAAAATATGTT



Dataset #:	1
Motif ID:	7
Motif name:	Motif 7
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0795455

Alignment:

```
AATAGYATTTT
AAWATRTATTT
```

Original motif Consensus sequence: AAAATKCTATT

Reverse complement motif Consensus sequence: AATAGYATTTT

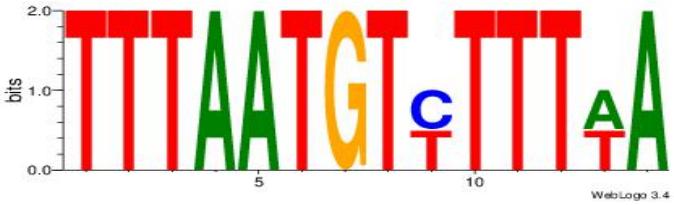
Dataset #:	1
Motif ID:	33

Motif name:	Motif 33
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	11
Similarity score:	0.0909091

Alignment:

```
TWAAAKACATTAAA
--AAATAKATWTT-
```

Original motif Consensus sequence: TTTAATGTYTTTWA



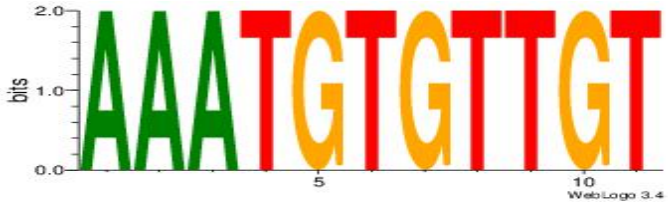
Reverse complement motif Consensus sequence: TWAAAKACATTAA

Dataset #:	1
Motif ID:	12
Motif name:	Motif 12
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.0909091

Alignment:
ACAACACATTT
AAWATRTATTT

Original motif Consensus sequence: ACAACACATTT

Reverse complement motif Consensus sequence: AAATGTGTTGT



Dataset #:	1
Motif ID:	24
Motif name:	Motif 24
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.0909091

Alignment:
TTWATGWCTTT
AAWATRTATTT

Original motif Consensus sequence: AAAGWCATWAA

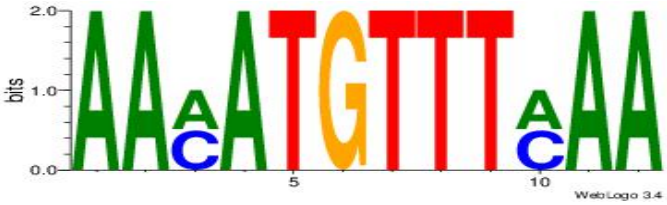
Reverse complement motif Consensus sequence: TTWATGWCTTT

Dataset #:	1
Motif ID:	11
Motif name:	Motif 11
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.0909091

Alignment:

```
AAMATGTTTMAA
AAWATRTATTT-
```

Original motif Consensus sequence: AAMATGTTTMAA



Reverse complement motif Consensus sequence: TTYAAACATYTT

Dataset #:	1
Motif ID:	10

Motif name:	Motif 10
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.0909091

Alignment:

```
AAAMATTGTTT
AAWATRTATTT
```

Original motif Consensus sequence: AAAMATTGTTT

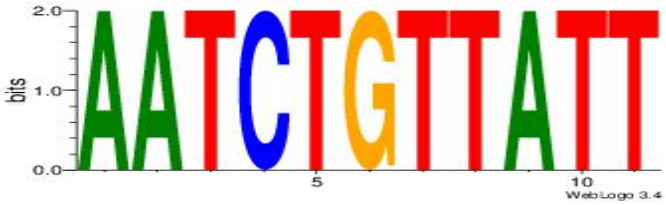
Reverse complement motif Consensus sequence: AAACAATYTTT

Dataset #:	1
Motif ID:	25
Motif name:	Motif 25
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0909091

Alignment:
AATCTGTTATT
AAWATRTATTT

Original motif Consensus sequence: AATAACAGATT

Reverse complement motif Consensus sequence: AATCTGTTATT

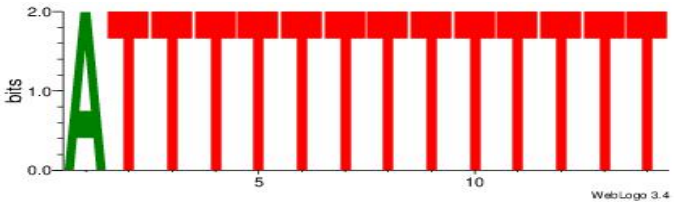


Dataset #:	2
Motif ID:	49
Motif name:	Motif 49
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	4
Number of overlap:	11
Similarity score:	0.102273

Alignment:
AAAAAAAAAAAAAT
---AAATAKATWTT

Original motif Consensus sequence: AAAAAAAAAAAAAT

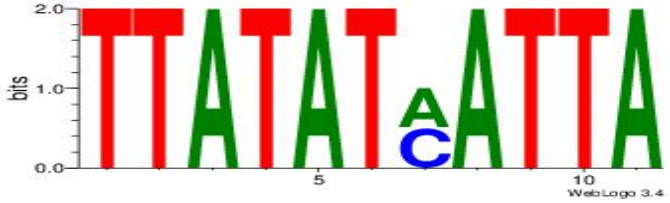
Reverse complement motif Consensus sequence: ATTTTTTTTTTTTT



Dataset #: 1 Motif ID: 14 Motif name: Motif 14

Original motif Consensus sequence: TAATKATATAA

Reverse complement motif Consensus sequence: TTATATYATTA



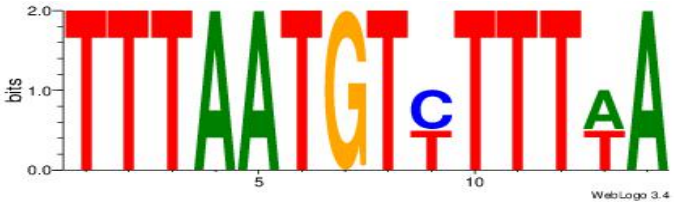
Best Matches for Motif ID 14 (Highest to Lowest)

Dataset #:	1
Motif ID:	33
Motif name:	Motif 33
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	11
Similarity score:	0.0482955

Alignment:

```
TTTAATGTYTTTWA
--TTATATYATTA-
```

Original motif Consensus sequence: TTTAATGTYTTTWA



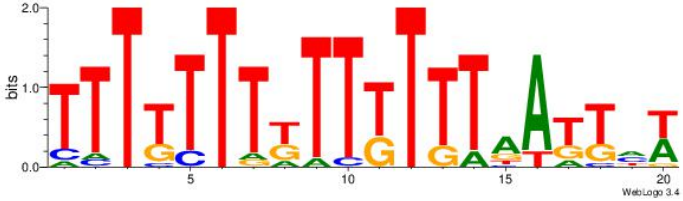
Reverse complement motif Consensus sequence: TWAAAKACATTAA

Dataset #:	5
Motif ID:	94
Motif name:	TFM13
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	9
Number of overlap:	11
Similarity score:	0.0629058

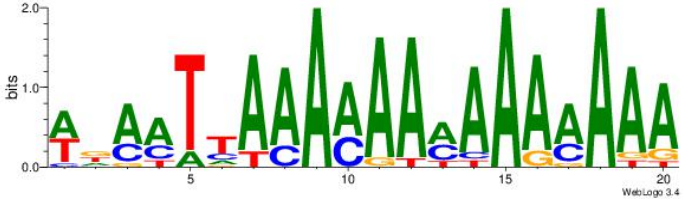
Alignment:

```
WHAATTAAARAARAAAAAAA
-TAATKATATAA--------
```

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW



Reverse complement motif Consensus sequence: WHAATTAAARAARAAAAAAA

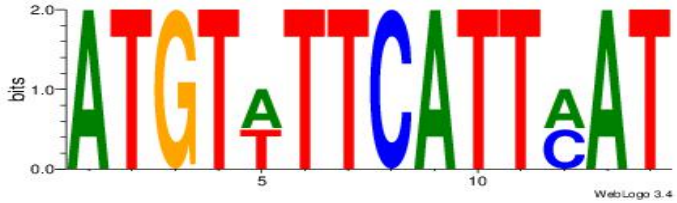


Dataset #:	1
Motif ID:	23
Motif name:	Motif 23
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	11
Similarity score:	0.0710227

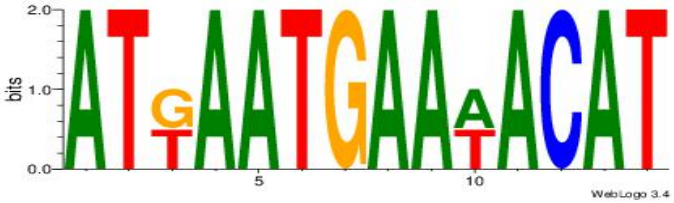
Alignment:

```
ATGTWTTCATTMAT
-TTATATYATTA--
```

Original motif Consensus sequence: ATGTWTTCATTMAT



Reverse complement motif Consensus sequence: ATYAATGAAWACA

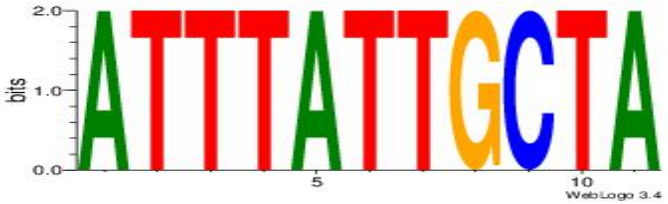


Dataset #:	1
Motif ID:	29
Motif name:	Motif 29
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11

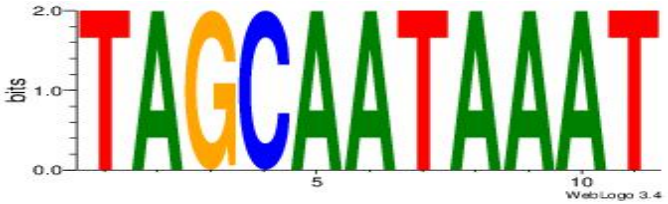
Similarity score: 0.0710227

Alignment:
ATTTATTGCTA
TTATATYATTA

Original motif Consensus sequence: ATTTATTGCTA



Reverse complement motif Consensus sequence: TAGCAATAAAT

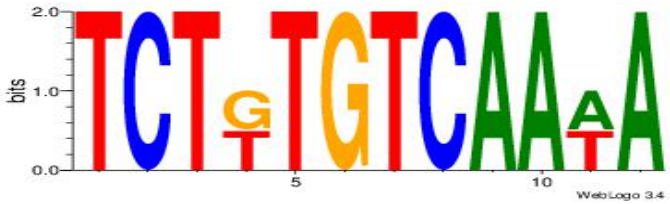


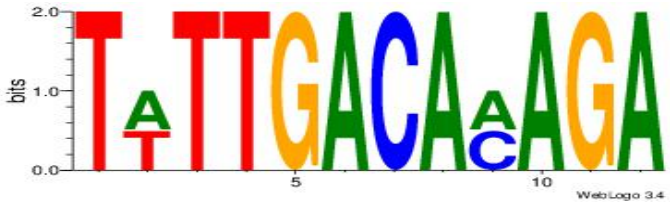
Dataset #: 1
Motif ID: 16
Motif name: Motif 16
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 2
Number of overlap: 11
Similarity score: 0.0710227

Alignment:
TWTTGACAYAGA
TAATKATATAA-

Original motif Consensus sequence: TCTKTGTCAAWA

Reverse complement motif Consensus sequence: TWTTGACAYAGA



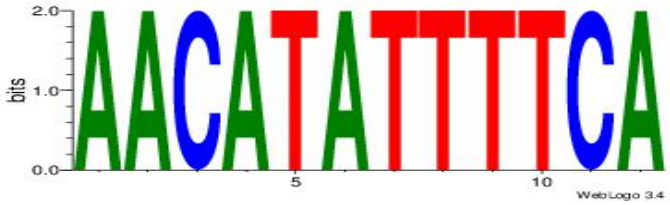


Dataset #:	1
Motif ID:	9
Motif name:	Motif 9
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0710227

Alignment:

```
TGAAAATATGTT
-TAATKATATAA
```

Original motif Consensus sequence: AACATATTTTCA



Reverse complement motif Consensus sequence: TGAAAATATGTT

Dataset #:	2
Motif ID:	49

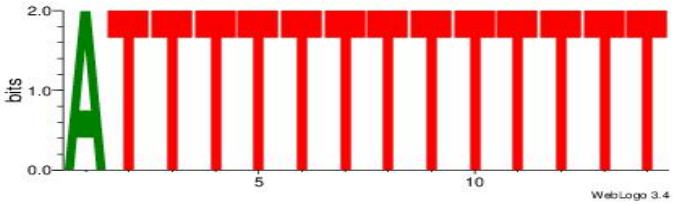
Motif name:	Motif 49
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0710227

Alignment:

```
ATTTTTTTTTTTTT
---TTATATYATTA
```

Original motif Consensus sequence: AAAAAAAAAAAAAT

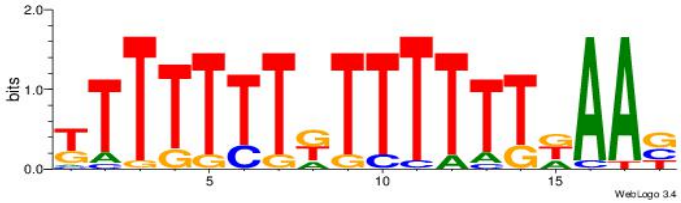
Reverse complement motif Consensus sequence: ATTTTTTTTTTTTT



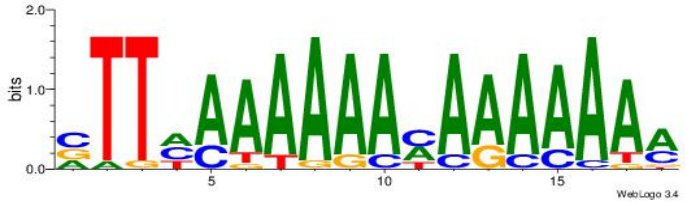
Dataset #:	5
Motif ID:	91
Motif name:	TFM3
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	6
Number of overlap:	11
Similarity score:	0.0752841

Alignment:
KTTTTTTKTTTTTTDAAB
-----TTATATYATTA--

Original motif Consensus sequence: KTTTTTTKTTTTTTDAAB



Reverse complement motif Consensus sequence: BTTHAAAAAAYAAAAAAR

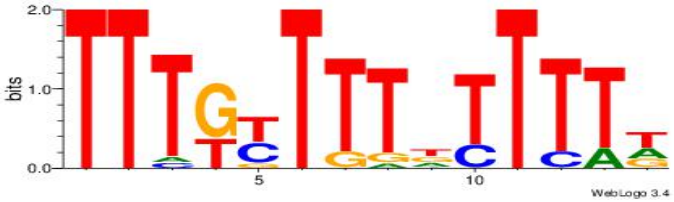


Dataset #:	1
Motif ID:	4
Motif name:	Motif 4
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	11
Similarity score:	0.0778409

Alignment:
TTTRKTTTHTTTTH
-TTATATYATTA--

Original motif Consensus sequence: HAAAAHAAARMAAA

Reverse complement motif Consensus sequence: TTTRKTTTHTTTTH

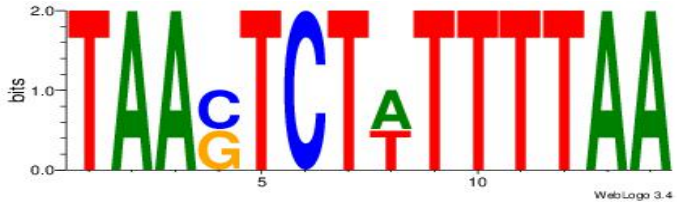


Dataset #:	1
Motif ID:	45
Motif name:	Motif 45
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.0823864

Alignment:

```
TAASTCTWTTTTAA
TAATKATATAA---
```

Original motif Consensus sequence: TAASTCTWTTTTAA

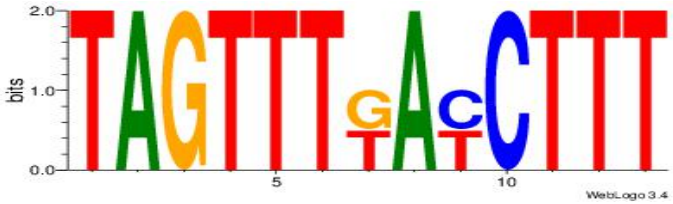


Reverse complement motif Consensus sequence: TTAAAAWAGASTT

Dataset #: 1 Motif ID: 15 Motif name: Motif 15

Original motif Consensus sequence: AAAGRTMAAACTA

Reverse complement motif Consensus sequence: TAGTTTYAKCTTT



Best Matches for Motif ID 15 (Highest to Lowest)

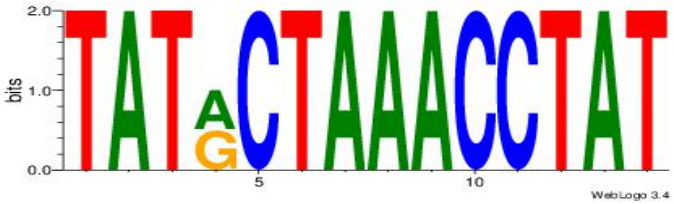
Dataset #:	1
Motif ID:	46
Motif name:	Motif 46
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	13
Similarity score:	0.0865385

Alignment:

```
ATAGGTTTAGYATA
-TAGTTTYAKCTTT
```

Original motif Consensus sequence: ATAGGTTTAGYATA

Reverse complement motif Consensus sequence: TATKCTAAACCTAT

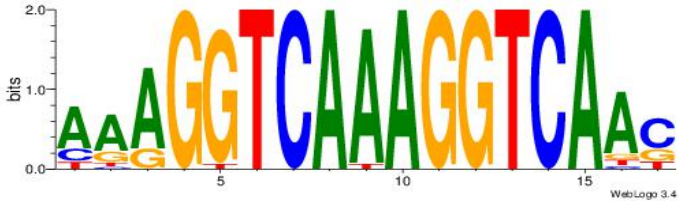


Dataset #:	3
Motif ID:	60
Motif name:	NR1H2RXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	13
Similarity score:	0.0938462

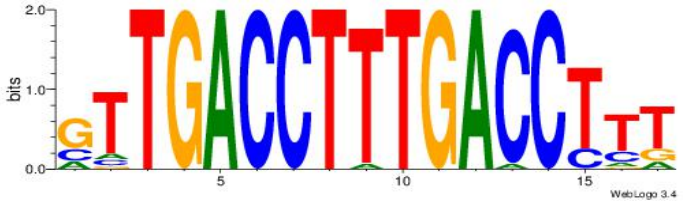
Alignment:

```
AAAGGTCAAAGGTCAAC
AAAGRTMAAACTA----
```

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC



Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT



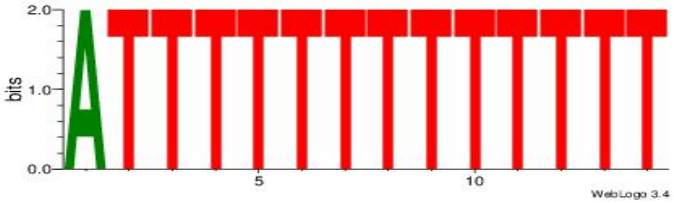
Dataset #:	2
Motif ID:	49
Motif name:	Motif 49
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2

Number of overlap: 13
Similarity score: 0.0961538

Alignment:
ATTTTTTTTTTTTT
-TAGTTTYAKCTTT

Original motif Consensus sequence: AAAAAAAAAAAAAT

Reverse complement motif Consensus sequence: ATTTTTTTTTTTTT

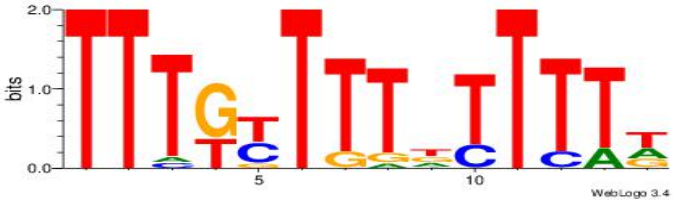


Dataset #: 1
Motif ID: 4
Motif name: Motif 4
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 1
Number of overlap: 13
Similarity score: 0.100962

Alignment:
HAAAAHAAARMAAA
AAAGRTMAAACTA-

Original motif Consensus sequence: HAAAAHAAARMAAA

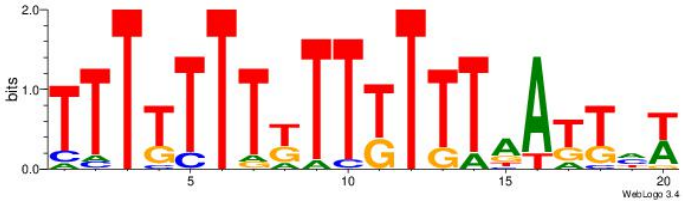
Reverse complement motif Consensus sequence: TTTRKTTTHTTTTH



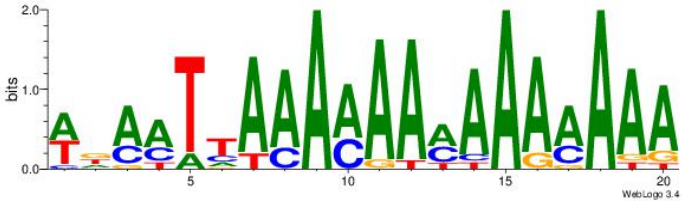
Dataset #: 5
Motif ID: 94
Motif name: TFM13
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 7
Number of overlap: 13
Similarity score: 0.101648

Alignment:
WHAATTAAARAARAAAAAAA
------AAAGRTMAAACTA-

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW



Reverse complement motif Consensus sequence:
WHAATTAAARAARAAAAAAA



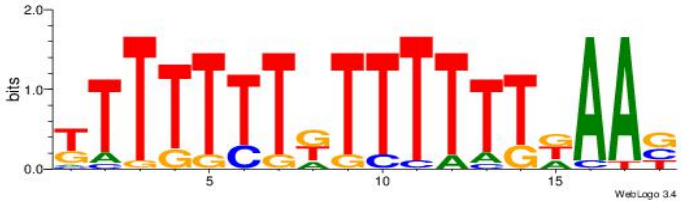
Dataset #: 5

Motif ID:	91
Motif name:	TFM3
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	13
Similarity score:	0.110577

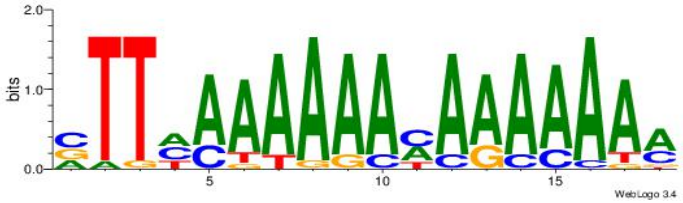
Alignment:

```
KTTTTTTKTTTTTTDAAB
TAGTTTYAKCTTT-----
```

Original motif Consensus sequence: KTTTTTTKTTTTTTDAAB



Reverse complement motif Consensus sequence: BTTHAAAAAAYAAAAAAR

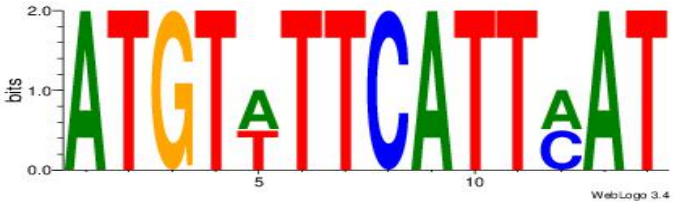


Dataset #:	1
Motif ID:	23
Motif name:	Motif 23
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	13

Similarity score: 0.125

Alignment:
ATGTWTTCATTMAT
-TAGTTTYAKCTTT

Original motif Consensus sequence: ATGTWTTCATTMAT



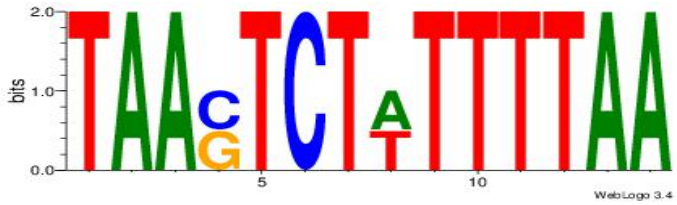
Reverse complement motif Consensus sequence: ATYAATGAAWACA

Dataset #: 1
Motif ID: 45
Motif name: Motif 45
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 2
Number of overlap: 13
Similarity score: 0.125

Alignment:
TTAAAAWAGASTTA
-AAAGRTMAAACTA

Original motif Consensus sequence: TAASTCTWTTTTAA

Reverse complement motif Consensus sequence: TTAAAAWAGASTT

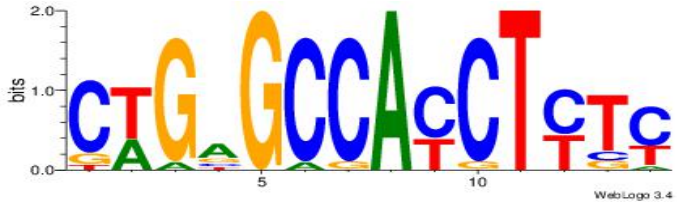


Dataset #:	1
Motif ID:	5
Motif name:	Motif 5
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	13
Similarity score:	0.125

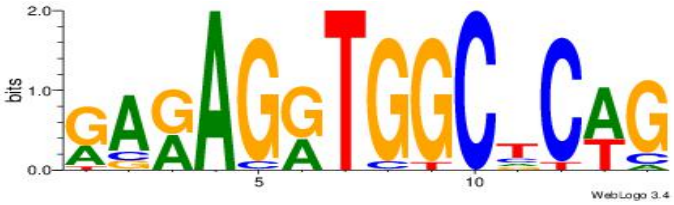
Alignment:

```
GAKAGKTGGCTCWG
AAAGRTMAAACTA-
```

Original motif Consensus sequence: CWGAGCCAYCTYTC



Reverse complement motif Consensus sequence: GAKAGKTGGCTCW



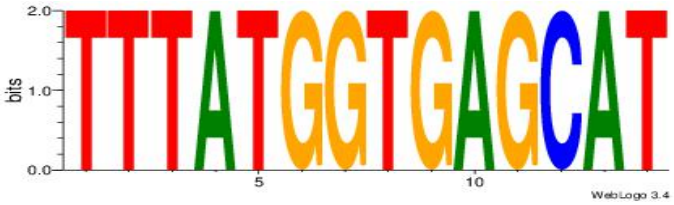
Dataset #:	1
Motif ID:	22

Motif name:	Motif 22
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	12
Similarity score:	0.614583

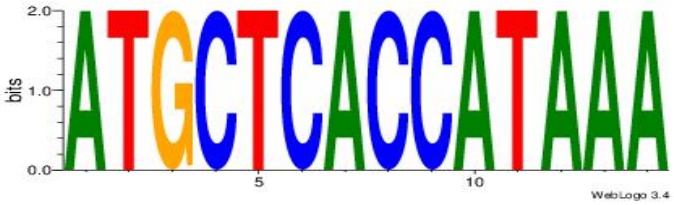
Alignment:

```
-ATGCTCACCATAAA
AAAGRTMAAACTA--
```

Original motif Consensus sequence: TTTATGGTGAGCAT

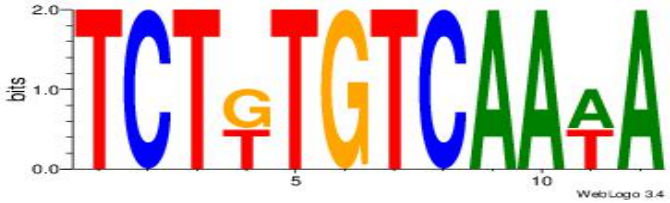


Reverse complement motif Consensus sequence: ATGCTCACCATAA

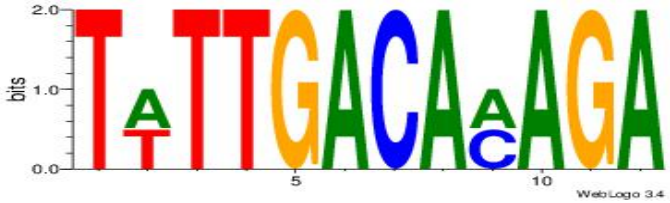


Dataset #: 1 Motif ID: 16 Motif name: Motif 16

Original motif Consensus sequence: TCTKTGTCAAWA



Reverse complement motif Consensus sequence: TWTTGACAYAGA



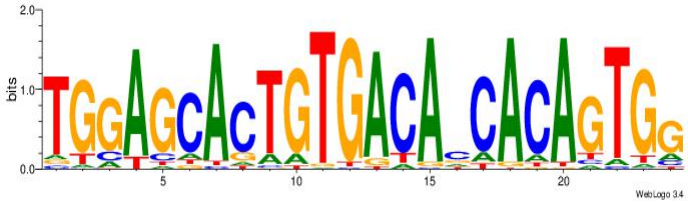
Best Matches for Motif ID 16 (Highest to Lowest)

Dataset #:	4
Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	7
Number of overlap:	12
Similarity score:	0.100225

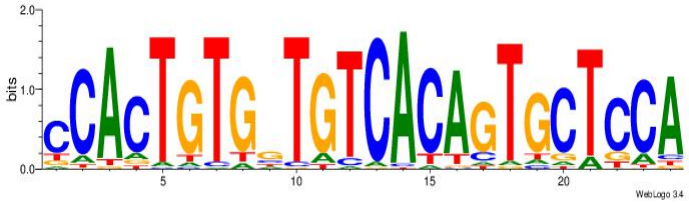
Alignment:

```
TGGAGCACTGTGACAVCACAGTGG
------TCTKTGTCAAWA------
```

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

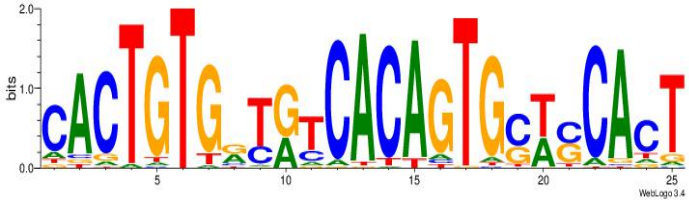


Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	9

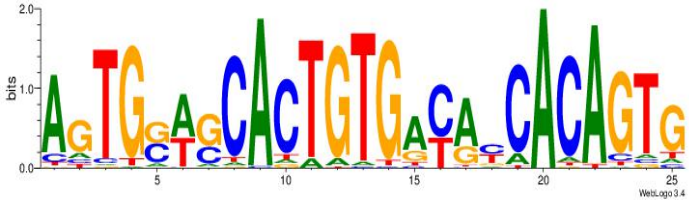
Number of overlap: 12
Similarity score: 0.100694

Alignment:
AGTGSWSCACTGTGAMAMCACAGTG
--------TCTKTGTCAAWA-----

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



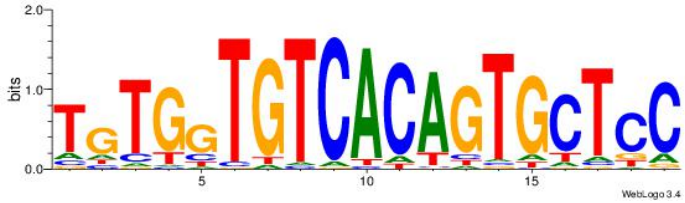
Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG



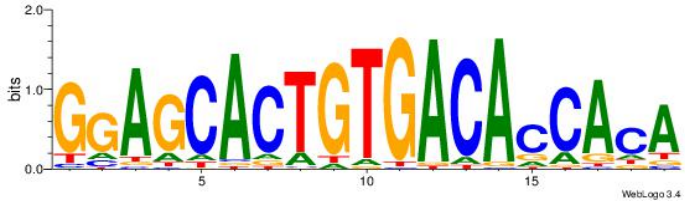
Dataset #: 4
Motif ID: 67
Motif name: TgTGgTGTCACAGTGCTCC
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 3
Number of overlap: 12
Similarity score: 0.102141

Alignment:
TGTGGTGTCACAGTGCTCC
--TWTTGACAYAGA-----

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA

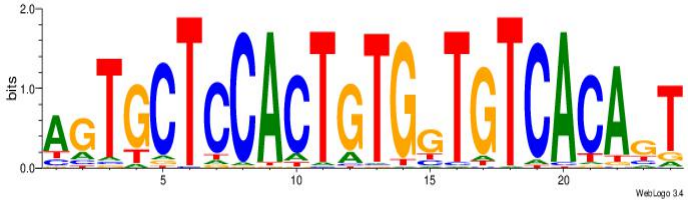


Dataset #:	4
Motif ID:	77
Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	13
Number of overlap:	12
Similarity score:	0.103433

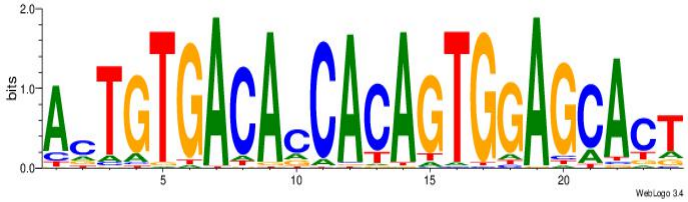
Alignment:

```
AGTGCTCCACTGTGGTGTCACAGT
------------TWTTGACAYAGA
```

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT

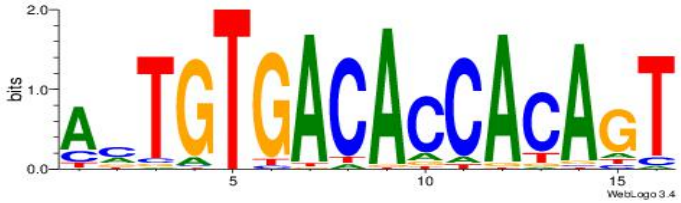


Dataset #:	4
Motif ID:	71
Motif name:	AmTGTGACACCACAGT
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	12
Similarity score:	0.104492

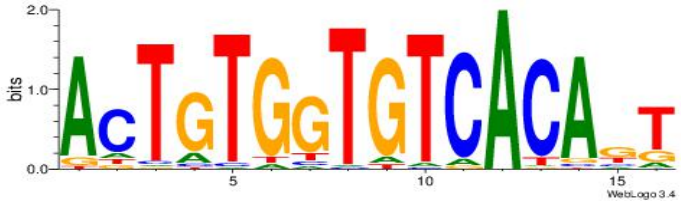
Alignment:

```
AMTGTGACACCACAGT
TCTKTGTCAAWA----
```

Original motif Consensus sequence: AMTGTGACACCACAGT



Reverse complement motif Consensus sequence: ACTGTGGTGTCACART

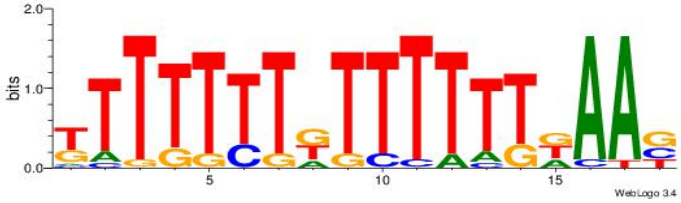


Dataset #:	5
Motif ID:	91
Motif name:	TFM3
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	5

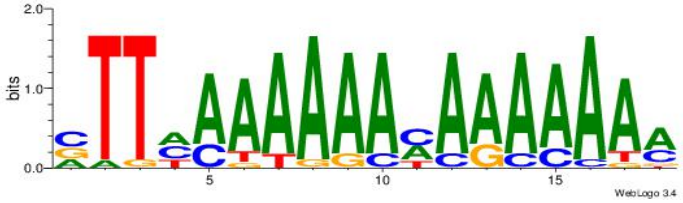
Number of overlap: 12
Similarity score: 0.11849

Alignment:
KTTTTTTKTTTTTTDAAB
----TCTKTGTCAAWA--

Original motif Consensus sequence: KTTTTTTKTTTTTTDAAB



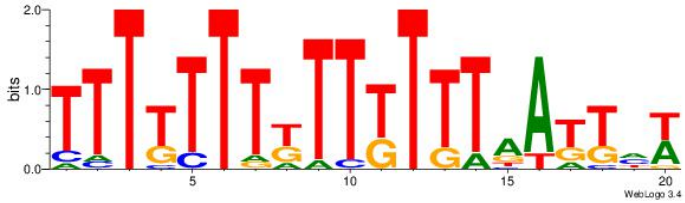
Reverse complement motif Consensus sequence: BTTHAAAAAAYAAAAAAR



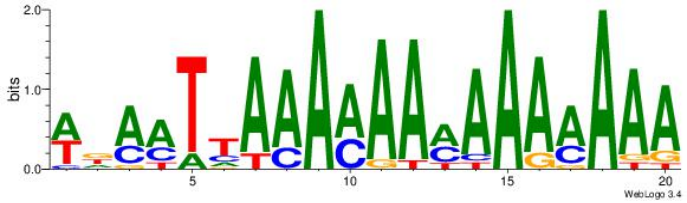
Dataset #: 5
Motif ID: 94
Motif name: TFM13
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 8
Number of overlap: 12
Similarity score: 0.119048

Alignment:
TTTTTTTKTTKTTTAATTHW
-------TCTKTGTCAAWA-

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW



Reverse complement motif Consensus sequence: WHAATTAAARAARAAAAAAA

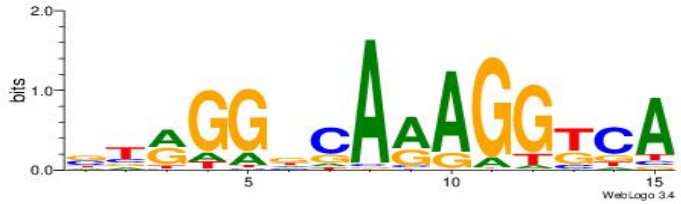


Dataset #:	3
Motif ID:	64
Motif name:	PPARGRXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	12
Similarity score:	0.121043

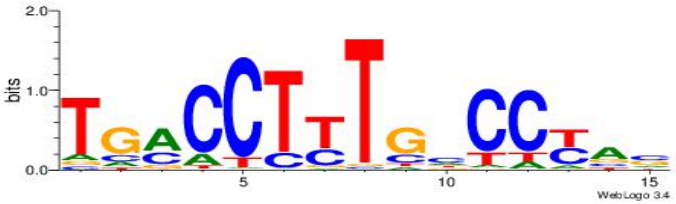
Alignment:

```
TGRCCTKTGHCCKAB
---TCTKTGTCAAWA
```

Original motif Consensus sequence: BTRGGDCARAGGKCA



Reverse complement motif Consensus sequence: TGRCCTKTGHCCK

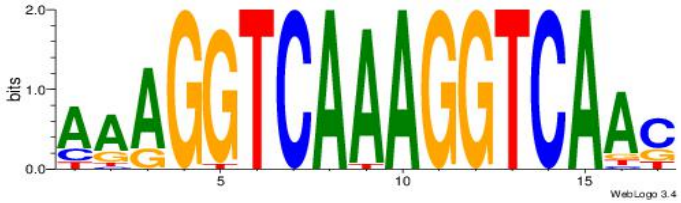


Dataset #:	3
Motif ID:	60
Motif name:	NR1H2RXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	12
Similarity score:	0.121667

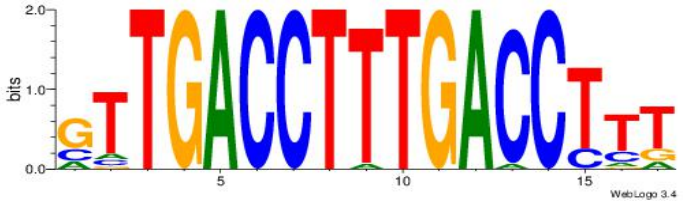
Alignment:

```
GTTGACCTTTGACCTTT
-----TCTKTGTCAAWA
```

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC



Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT

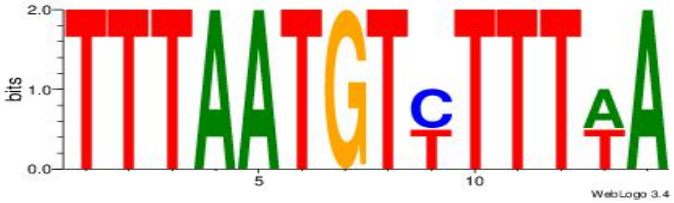


Dataset #:	1
Motif ID:	33
Motif name:	Motif 33
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2

Number of overlap: 12
Similarity score: 0.125

Alignment:
TWAAAKACATTAAA
-TWTTGACAYAGA-

Original motif Consensus sequence: TTTAATGTYTTTWA



Reverse complement motif Consensus sequence: TWAAAKACATTAA

Dataset #: 1 Motif ID: 17 Motif name: Motif 17

Original motif Consensus sequence: CTTCTGACCTC

Reverse complement motif Consensus sequence: GAGGTCAGAAG

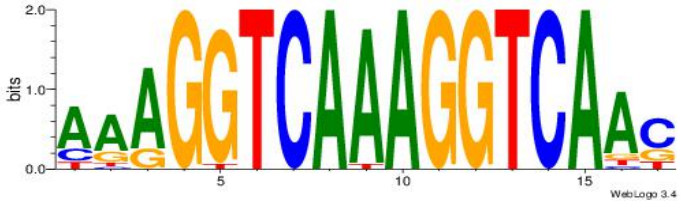
Best Matches for Motif ID 17 (Highest to Lowest)

Dataset #: 3
Motif ID: 60
Motif name: NR1H2RXRA
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif

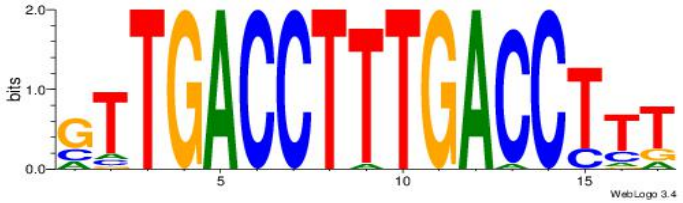
Direction:	Backward
Position number:	6
Number of overlap:	11
Similarity score:	0.0348052

Alignment:
AAAGGTCAAAGGTCAAC
-GAGGTCAGAAG-----

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC



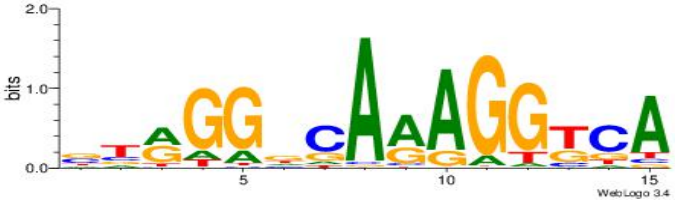
Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT



Dataset #:	3
Motif ID:	64
Motif name:	PPARGRXRA
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	4
Number of overlap:	11
Similarity score:	0.0792232

Alignment:
BTRGGDCARAGGKCA
-GAGGTCAGAAG---

Original motif Consensus sequence: BTRGGDCARAGGKCA



Reverse complement motif Consensus sequence: TGRCCTKTGHCCK

Dataset #:	1
Motif ID:	24
Motif name:	Motif 24
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0793506

Alignment:

```
TTWATGWCTTT
CTTCTGACCTC
```

Original motif Consensus sequence: AAAGWCATWAA

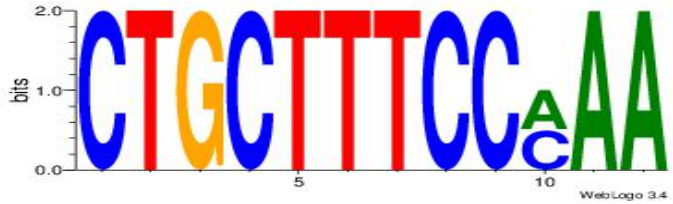
Reverse complement motif Consensus sequence: TTWATGWCTTT

Dataset #:	1
Motif ID:	21
Motif name:	Motif 21
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.0793506

Alignment:

```
CTGCTTTCCMAA
CTTCTGACCTC-
```

Original motif Consensus sequence: CTGCTTTCCMAA



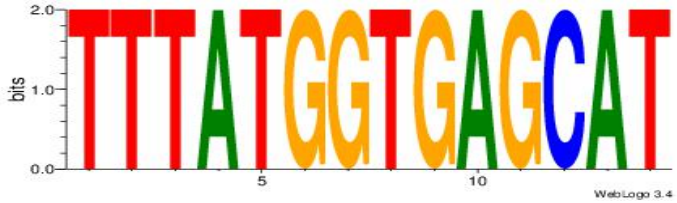
Reverse complement motif Consensus sequence: TTYGGAAAGCAG

Dataset #:	1
Motif ID:	22
Motif name:	Motif 22
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	11

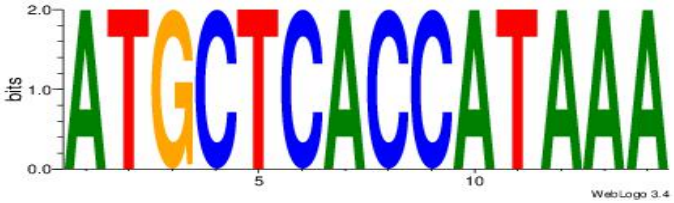
Similarity score: 0.0793506

Alignment:
ATGCTCACCATAAA
CTTCTGACCTC---

Original motif Consensus sequence: TTTATGGTGAGCAT



Reverse complement motif Consensus sequence: ATGCTCACCATAA

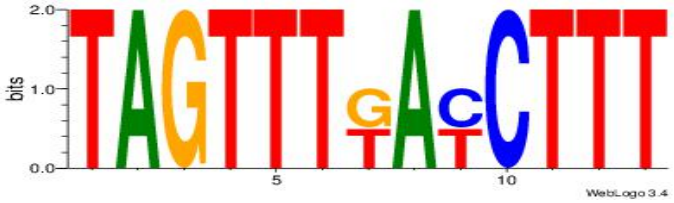


Dataset #: 1
Motif ID: 15
Motif name: Motif 15
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 2
Number of overlap: 11
Similarity score: 0.0793506

Alignment:
TAGTTTYAKCTTT
-CTTCTGACCTC-

Original motif Consensus sequence: AAAGRTMAAACTA

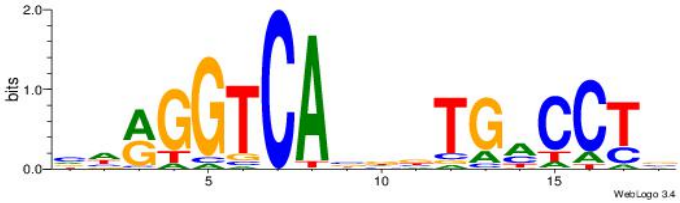
Reverse complement motif Consensus sequence: TAGTTTYAKCTTT



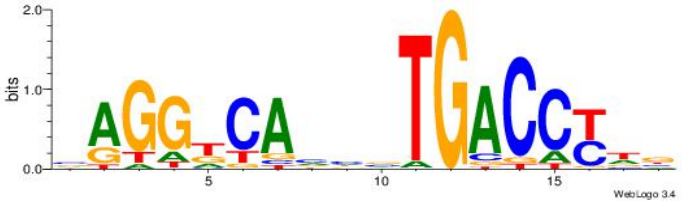
Dataset #: 3
Motif ID: 59
Motif name: ESR2
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 2
Number of overlap: 11
Similarity score: 0.0794143

Alignment:
BAGGYCABHBTGACCKHV
------CTTCTGACCTC-

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB



Reverse complement motif Consensus sequence:
BAGGYCABHBTGACCKHV



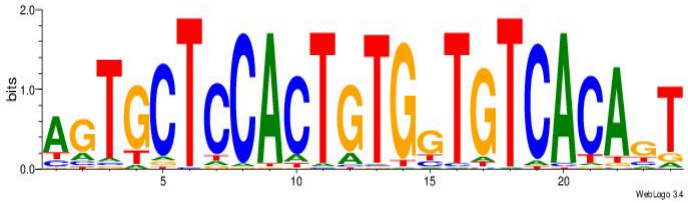
Dataset #: 4

Motif ID:	77
Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.0799909

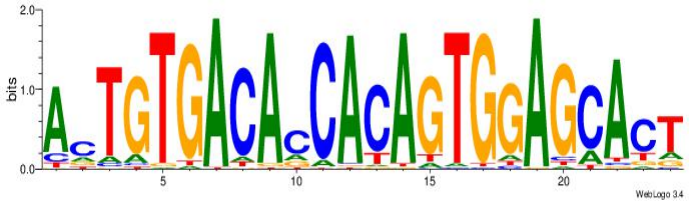
Alignment:

```
ACTGTGACACCACAGTGGAGCACT
CTTCTGACCTC-------------
```

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT

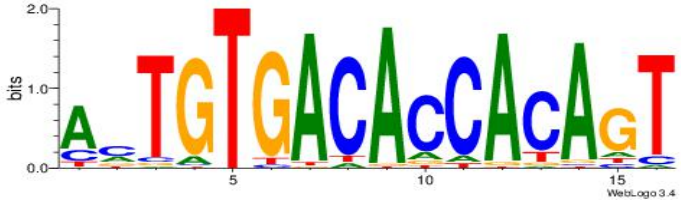


Dataset #:	4
Motif ID:	71
Motif name:	AmTGTGACACCACAGT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	6
Number of overlap:	11

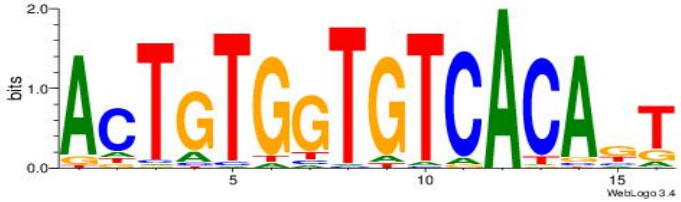
Similarity score: 0.0800609

Alignment:
ACTGTGGTGTCACART
-----GAGGTCAGAAG

Original motif Consensus sequence: AMTGTGACACCACAGT



Reverse complement motif Consensus sequence: ACTGTGGTGTCACART

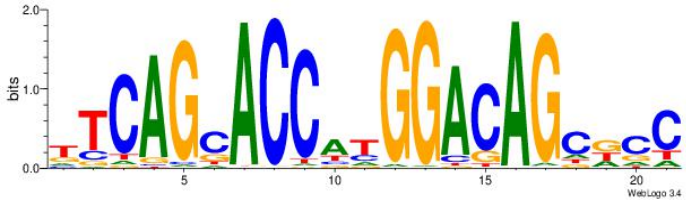


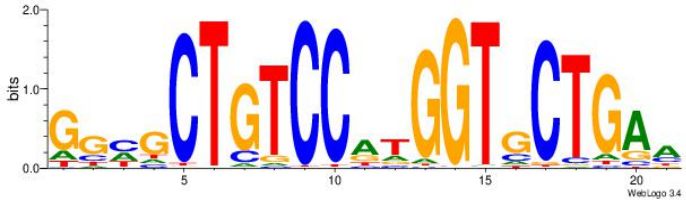
Dataset #: 3
Motif ID: 57
Motif name: REST
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 2
Number of overlap: 11
Similarity score: 0.0877439

Alignment:
GGYGCTGTCCATGGTGCTGAA
-CTTCTGACCTC---------

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC

Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA





Dataset #: 1 Motif ID: 18 Motif name: Motif 18

Original motif Consensus sequence: CAAAGTCCAGC

Reverse complement motif Consensus sequence: GCTGGACTTTG

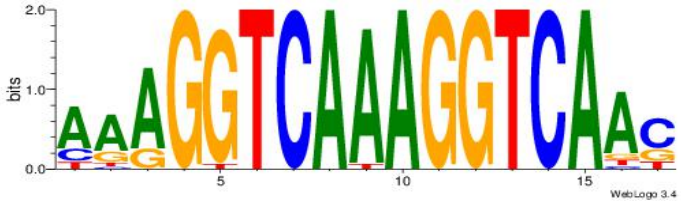
Best Matches for Motif ID 18 (Highest to Lowest)

Dataset #:	3
Motif ID:	60
Motif name:	NR1H2RXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	7
Number of overlap:	11
Similarity score:	0.0763636

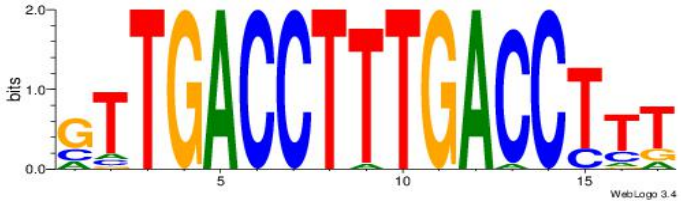
Alignment:

```
AAAGGTCAAAGGTCAAC
------CAAAGTCCAGC
```

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC



Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT

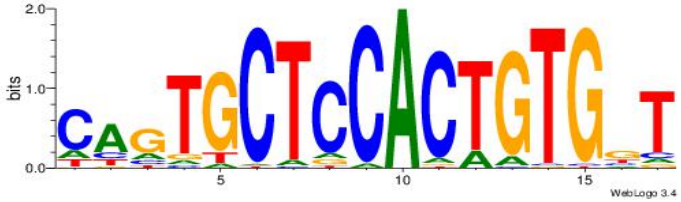


Dataset #:	4
Motif ID:	70
Motif name:	CagTGCTCCACTGTGgT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	11
Similarity score:	0.0780303

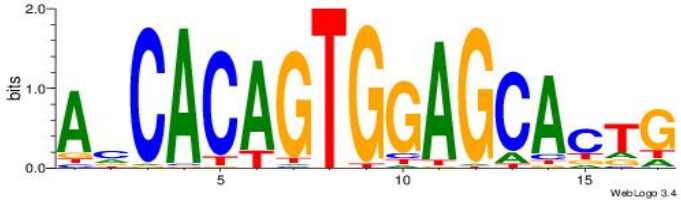
Alignment:

```
ABCACAGTGGAGCACTG
--CAAAGTCCAGC----
```

Original motif Consensus sequence: CAGTGCTCCACTGTGBT



Reverse complement motif Consensus sequence: ABCACAGTGGAGCACTG

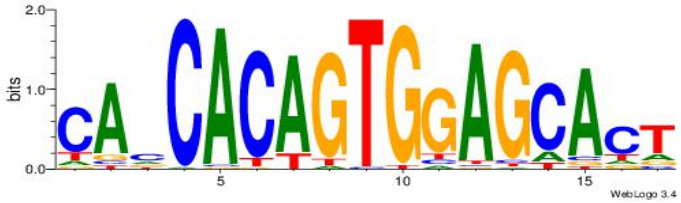


Dataset #:	4
Motif ID:	76
Motif name:	CAcCACAGTGGAGCAct
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	11
Similarity score:	0.0795455

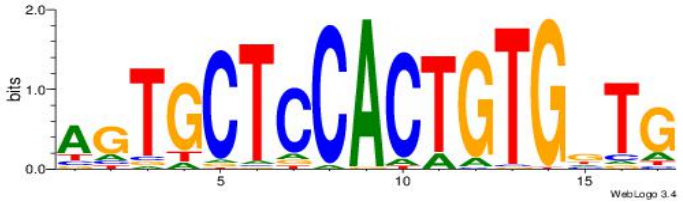
Alignment:

```
AGTGCTCCACTGTGDTG
---GCTGGACTTTG---
```

Original motif Consensus sequence: CAHCACAGTGGAGCACT



Reverse complement motif Consensus sequence: AGTGCTCCACTGTGDTG

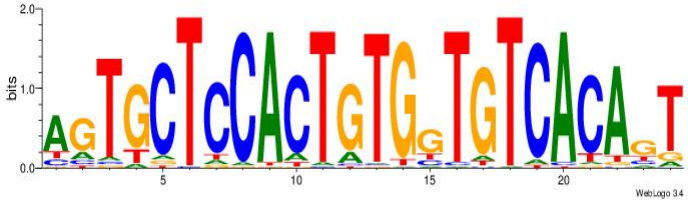


Dataset #:	4
Motif ID:	77
Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	11

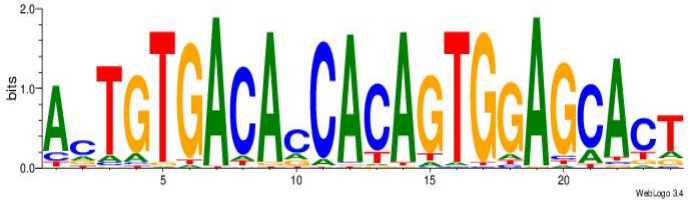
Number of overlap: 11
Similarity score: 0.0797055

Alignment:
ACTGTGACACCACAGTGGAGCACT
----------CAAAGTCCAGC---

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



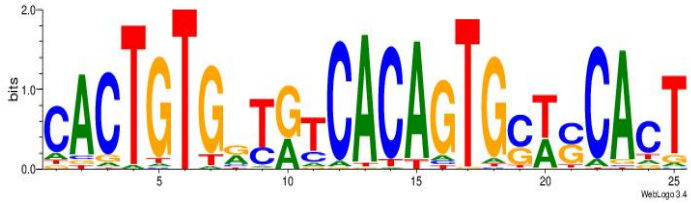
Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT



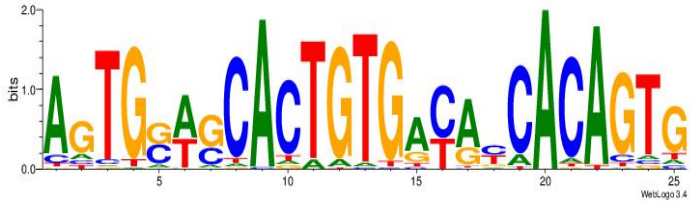
Dataset #: 4
Motif ID: 72
Motif name: CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 12
Number of overlap: 11
Similarity score: 0.0894661

Alignment:
AGTGSWSCACTGTGAMAMCACAGTG
---GCTGGACTTTG-----------

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG

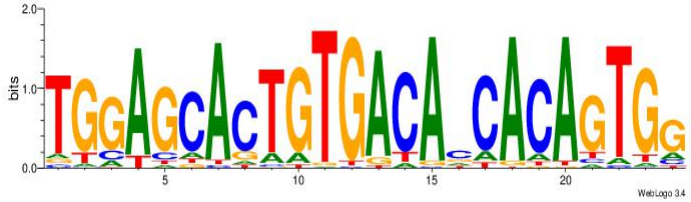


Dataset #:	4
Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	11
Similarity score:	0.10258

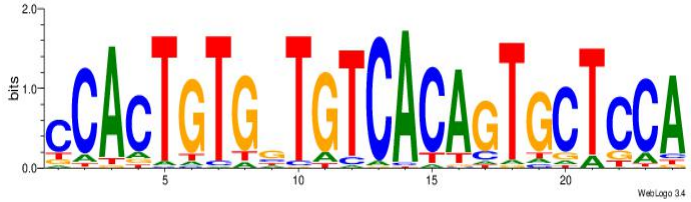
Alignment:

```
CCACTGTGVTGTCACAGTGCTCCA
------------CAAAGTCCAGC-
```

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence:
CCACTGTGVTGTCACAGTGCTCCA

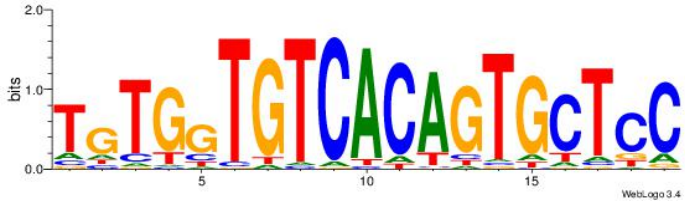


Dataset #:	4
Motif ID:	67
Motif name:	TgTGgTGTCACAGTGCTCC
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	9
Number of overlap:	11
Similarity score:	0.107008

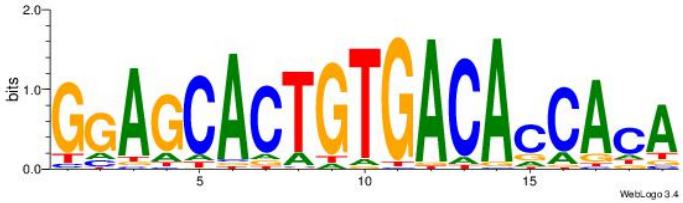
Alignment:

```
TGTGGTGTCACAGTGCTCC
--------CAAAGTCCAGC
```

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA

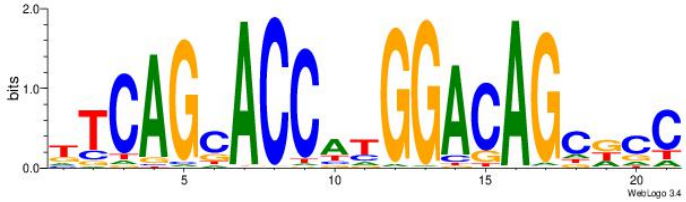


Dataset #:	3
Motif ID:	57
Motif name:	REST
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	4

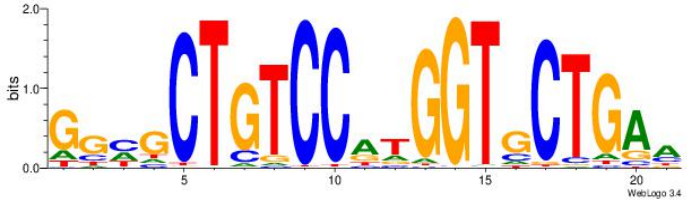
Number of overlap: 11
Similarity score: 0.110715

Alignment:
TTCAGCACCATGGACAGCKCC
-------CAAAGTCCAGC---

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA

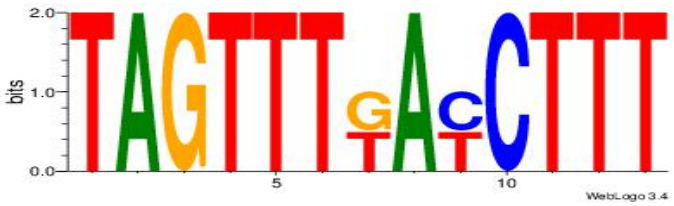


Dataset #: 1
Motif ID: 15
Motif name: Motif 15
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 1
Number of overlap: 11
Similarity score: 0.113636

Alignment:
AAAGRTMAAACTA
CAAAGTCCAGC--

Original motif Consensus sequence: AAAGRTMAAACTA

Reverse complement motif Consensus sequence: TAGTTTYAKCTTT



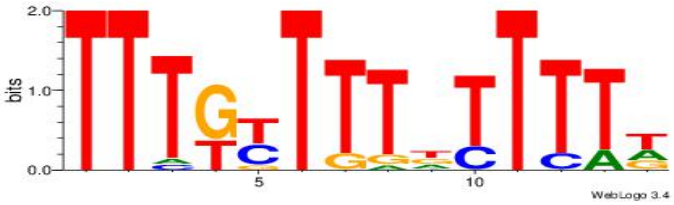
Dataset #:	1
Motif ID:	4
Motif name:	Motif 4
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	4
Number of overlap:	11
Similarity score:	0.120455

Alignment:

```
HAAAAHAAARMAAA
CAAAGTCCAGC---
```

Original motif Consensus sequence: HAAAAHAAARMAAA

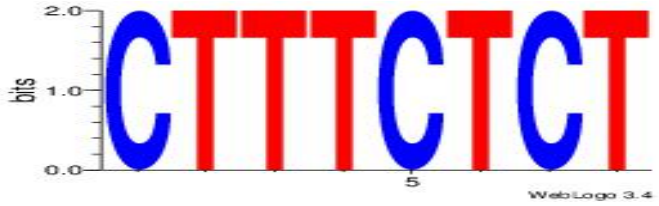
Reverse complement motif Consensus sequence: TTTRKTTTHTTTTH



Dataset #: 1 Motif ID: 19 Motif name: Motif 19

Original motif Consensus sequence: AGAGAAAG

Reverse complement motif Consensus sequence: CTTTCTCT



Best Matches for Motif ID 19 (Highest to Lowest)

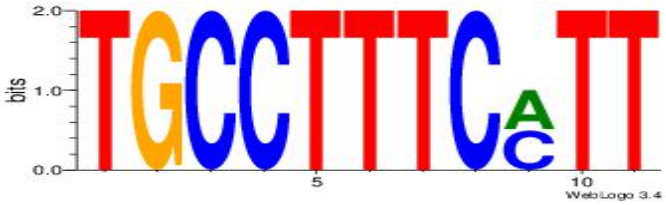
Dataset #:	1
Motif ID:	43
Motif name:	Motif 43
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	8
Similarity score:	0.046875

Alignment:

```
TGCCTTTCYTT
---CTTTCTCT
```

Original motif Consensus sequence: AAKGAAAGGCA

Reverse complement motif Consensus sequence: TGCCTTTCYTT

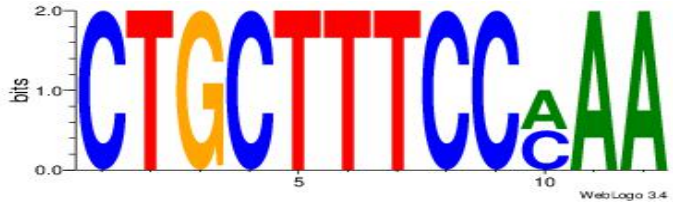


Dataset #:	1
Motif ID:	21
Motif name:	Motif 21
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	4
Number of overlap:	8
Similarity score:	0.078125

Alignment:

```
CTGCTTTCCMAA
---CTTTCTCT-
```

Original motif Consensus sequence: CTGCTTTCCMAA



Reverse complement motif Consensus sequence: TTYGGAAAGCAG

Dataset #:	1
Motif ID:	44
Motif name:	Motif 44
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	8

Similarity score: 0.078125

Alignment:
TTCTTYCATT
--CTTTCTCT

Original motif Consensus sequence: AATGKAAGAA

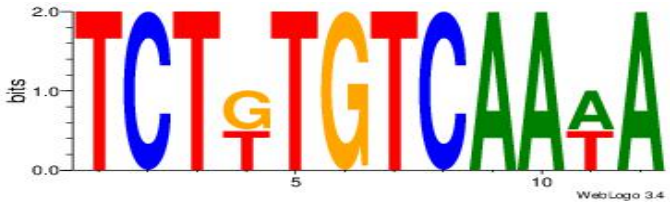
Reverse complement motif Consensus sequence: TTCTTYCATT

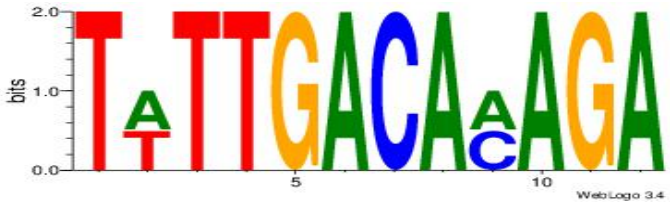
Dataset #: 1
Motif ID: 16
Motif name: Motif 16
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 4
Number of overlap: 8
Similarity score: 0.078125

Alignment:
TWTTGACAYAGA
-AGAGAAAG---

Original motif Consensus sequence: TCTKTGTCAAWA

Reverse complement motif Consensus sequence: TWTTGACAYAGA





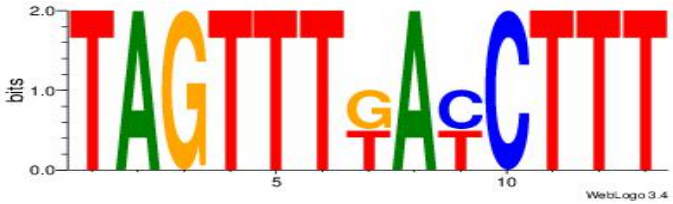
Dataset #:	1
Motif ID:	15
Motif name:	Motif 15
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	8
Similarity score:	0.09375

Alignment:

```
AAAGRTMAAACTA
--AGAGAAAG---
```

Original motif Consensus sequence: AAAGRTMAAACTA

Reverse complement motif Consensus sequence: TAGTTTYAKCTTT



Dataset #:	2
Motif ID:	49

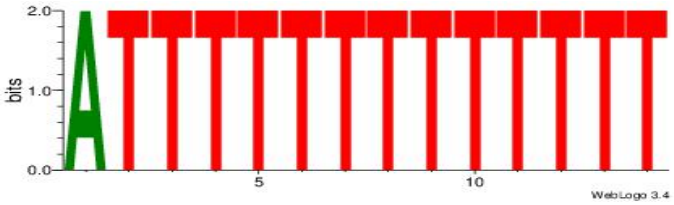
Motif name:	Motif 49
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	7
Number of overlap:	8
Similarity score:	0.09375

Alignment:

```
AAAAAAAAAAAAAT
AGAGAAAG------
```

Original motif Consensus sequence: AAAAAAAAAAAAAT

Reverse complement motif Consensus sequence: ATTTTTTTTTTTTT

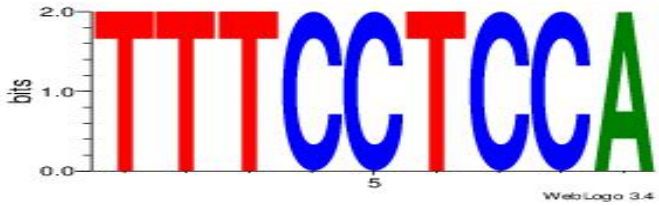


Dataset #:	1
Motif ID:	41
Motif name:	Motif 41
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	8
Similarity score:	0.09375

Alignment:
TTTCCTCCA
CTTTCTCT-

Original motif Consensus sequence: TGGAGGAAA

Reverse complement motif Consensus sequence: TTTCCTCCA

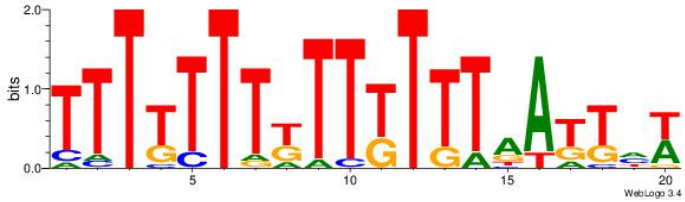


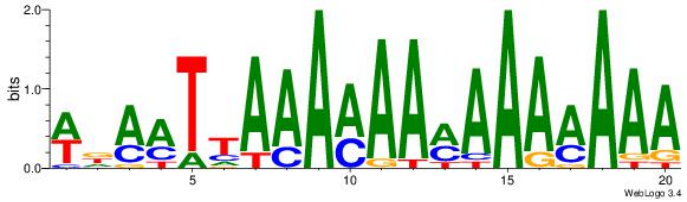
Dataset #:	5
Motif ID:	94
Motif name:	TFM13
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	10
Number of overlap:	8
Similarity score:	0.0959821

Alignment:
WHAATTAAARAARAAAAAAA
---------AGAGAAAG---

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW

Reverse complement motif Consensus sequence:
WHAATTAAARAARAAAAAAA

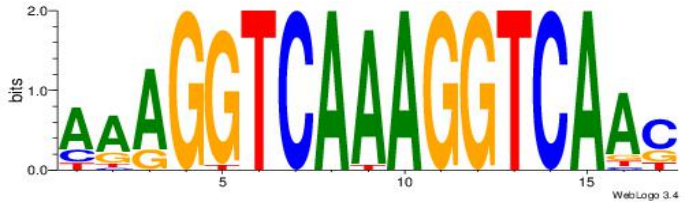




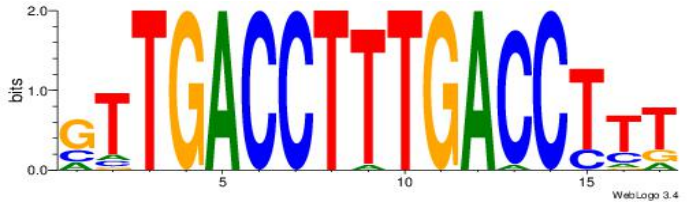
Dataset #: 3
Motif ID: 60
Motif name: NR1H2RXRA
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 7
Number of overlap: 8
Similarity score: 0.09625

Alignment:
AAAGGTCAAAGGTCAAC
---AGAGAAAG------

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC



Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT



Dataset #: 1

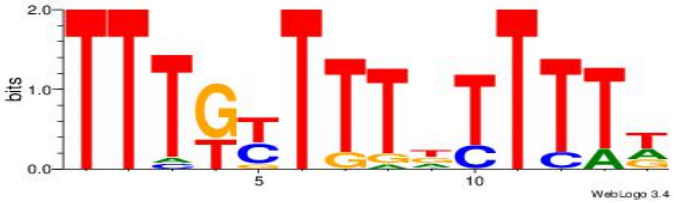
Motif ID:	4
Motif name:	Motif 4
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	5
Number of overlap:	8
Similarity score:	0.101562

Alignment:

```
HAAAAHAAARMAAA
--AGAGAAAG----
```

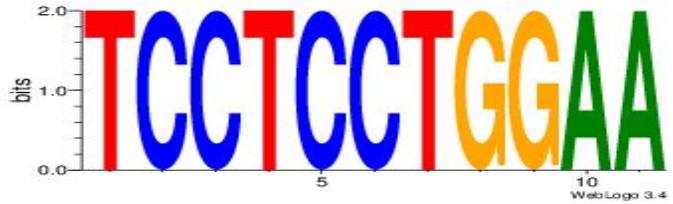
Original motif Consensus sequence: HAAAAHAAARMAAA

Reverse complement motif Consensus sequence: TTTRKTTTHTTTTH



Dataset #: 1 Motif ID: 20 Motif name: Motif 20

Original motif Consensus sequence: TCCTCCTGGAA



Reverse complement motif Consensus sequence: TTCCAGGAGGA

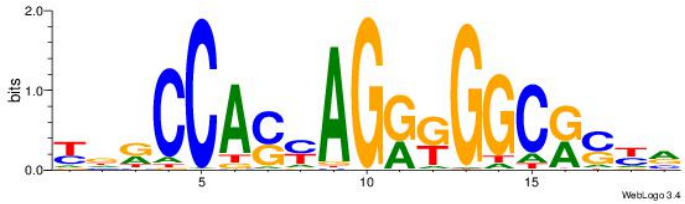
Best Matches for Motif ID 20 (Highest to Lowest)

Dataset #:	3
Motif ID:	66
Motif name:	CTCF
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	8
Number of overlap:	11
Similarity score:	0.102062

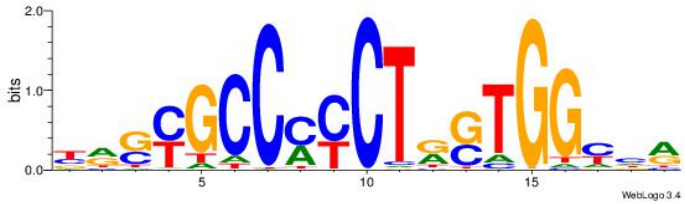
Alignment:

```
BMSMGCCYMCTKSTGGMHM
-------TCCTCCTGGAA-
```

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM



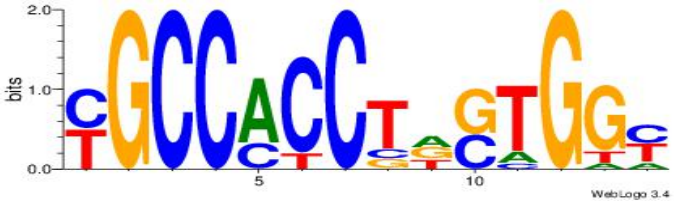
Dataset #:	2
Motif ID:	47
Motif name:	Motif 47
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif

Direction:	Forward
Position number:	2
Number of overlap:	11
Similarity score:	0.121753

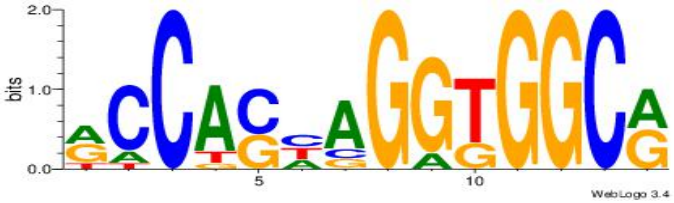
Alignment:

```
YGCCACCTDSTGGY
-TCCTCCTGGAA--
```

Original motif Consensus sequence: YGCCACCTDSTGGY



Reverse complement motif Consensus sequence: KCCASDAGGTGGC

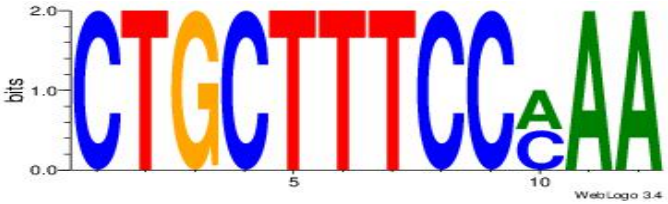


Dataset #:	1
Motif ID:	21
Motif name:	Motif 21
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.125

Alignment:

```
TTYGGAAAGCAG
TTCCAGGAGGA-
```

Original motif Consensus sequence: CTGCTTTCCMAA



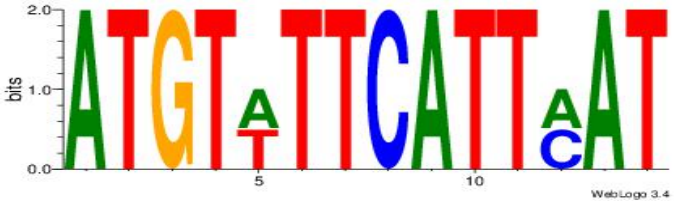
Reverse complement motif Consensus sequence: TTYGGAAAGCAG

Dataset #:	1
Motif ID:	23
Motif name:	Motif 23
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.125

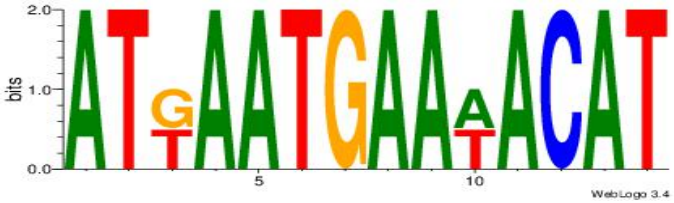
Alignment:

```
ATYAATGAAWACAT
TTCCAGGAGGA---
```

Original motif Consensus sequence: ATGTWTTCATTMAT



Reverse complement motif Consensus sequence: ATYAATGAAWACA



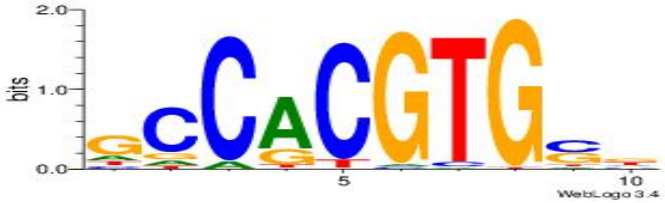
Dataset #:	3
Motif ID:	56
Motif name:	Mycn
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	10
Similarity score:	0.612329

Alignment:

```
GCCACGTGSD-
TCCTCCTGGAA
```

Original motif Consensus sequence: HSCACGTGGC

Reverse complement motif Consensus sequence: GCCACGTGSD

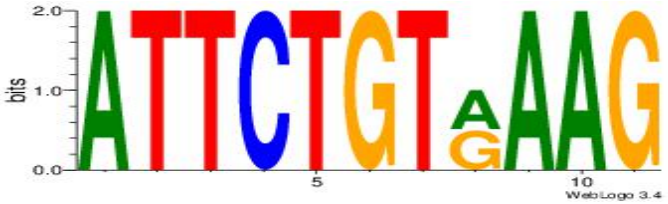


Dataset #:	1
Motif ID:	27
Motif name:	Motif 27
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	10

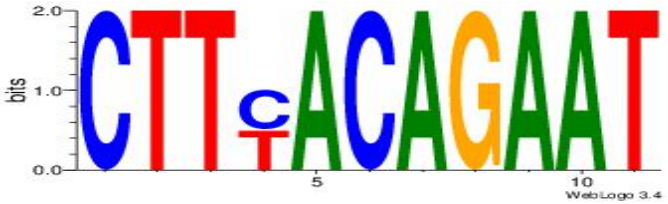
Similarity score: 0.6125

Alignment:
ATTCTGTRAAG-
-TTCCAGGAGGA

Original motif Consensus sequence: ATTCTGTRAAG



Reverse complement motif Consensus sequence: CTTKACAGAAT

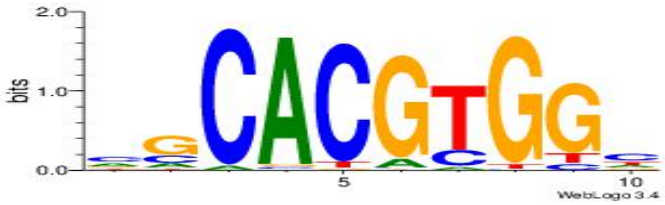


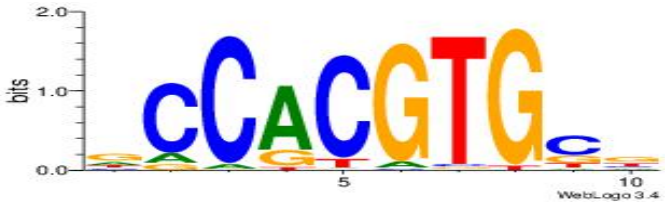
Dataset #:	3
Motif ID:	58
Motif name:	Myc
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	10
Similarity score:	0.615419

Alignment:
DCCACGTGCV-
TCCTCCTGGAA

Original motif Consensus sequence: VGCACGTGGH

Reverse complement motif Consensus sequence: DCCACGTGCV



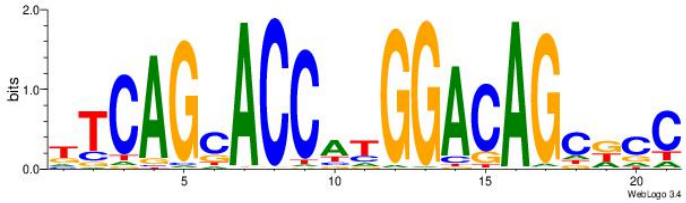


Dataset #:	3
Motif ID:	57
Motif name:	REST
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	12
Number of overlap:	10
Similarity score:	0.62065

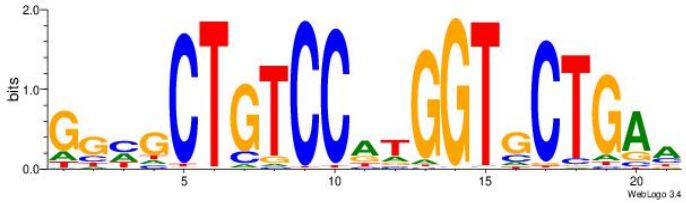
Alignment:

```
-TTCAGCACCATGGACAGCKCC
TTCCAGGAGGA-----------
```

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA



Dataset #: 1

Motif ID:	30
Motif name:	Motif 30
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	10
Similarity score:	0.625

Alignment:

```
TTGCTGCTTTT-
-TCCTCCTGGAA
```

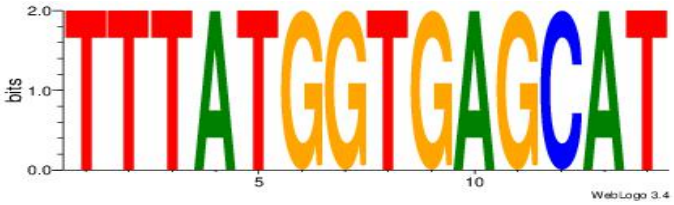
Original motif Consensus sequence: TTGCTGCTTTT

Reverse complement motif Consensus sequence: AAAAGCAGCAA

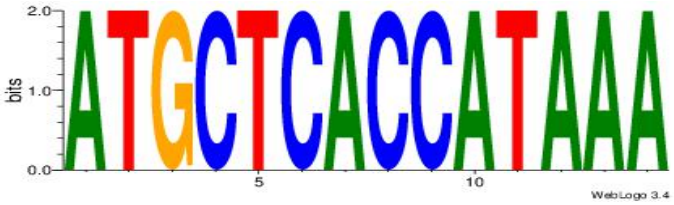
Dataset #:	1
Motif ID:	22
Motif name:	Motif 22
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	5
Number of overlap:	10
Similarity score:	0.625

Alignment:
ATGCTCACCATAAA-
----TCCTCCTGGAA

Original motif Consensus sequence: TTTATGGTGAGCAT

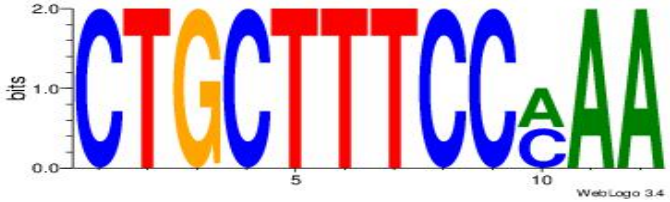


Reverse complement motif Consensus sequence: ATGCTCACCATAA



Dataset #: 1 Motif ID: 21 Motif name: Motif 21

Original motif Consensus sequence: CTGCTTTCCMAA



Reverse complement motif Consensus sequence: TTYGGAAAGCAG

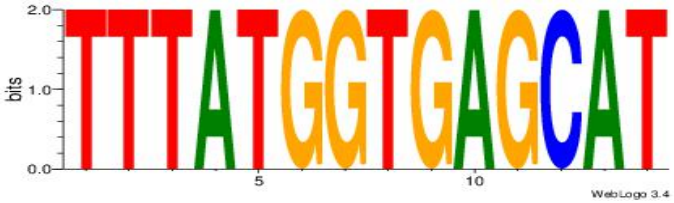
Best Matches for Motif ID 21 (Highest to Lowest)

Dataset #:	1
Motif ID:	22
Motif name:	Motif 22
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3

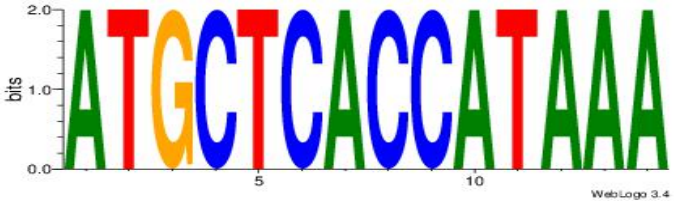
Number of overlap: 12
Similarity score: 0.075

Alignment:
ATGCTCACCATAAA
CTGCTTTCCMAA--

Original motif Consensus sequence: TTTATGGTGAGCAT



Reverse complement motif Consensus sequence: ATGCTCACCATAA/

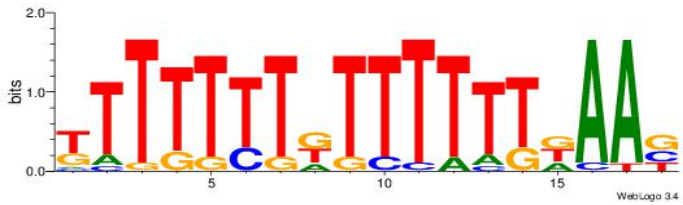


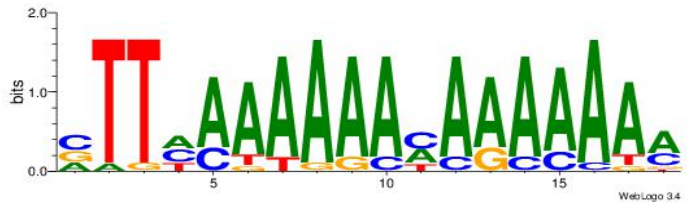
Dataset #: 5
Motif ID: 91
Motif name: TFM3
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 6
Number of overlap: 12
Similarity score: 0.0854167

Alignment:
BTTHAAAAAAYAAAAAAR
-TTYGGAAAGCAG-----

Original motif Consensus sequence: KTTTTTTKTTTTTTDAAB

Reverse complement motif Consensus sequence: BTTHAAAAAAYAAAAAAR

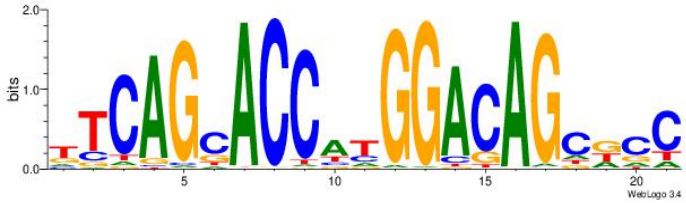




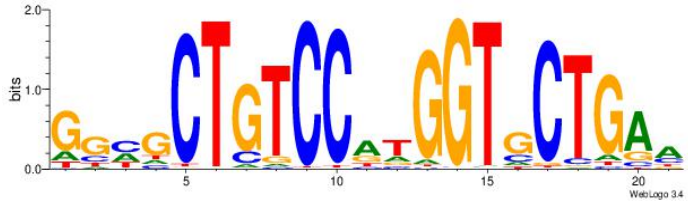
Dataset #: 3
Motif ID: 57
Motif name: REST
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 9
Number of overlap: 12
Similarity score: 0.0868982

Alignment:
GGYGCTGTCCATGGTGCTGAA
-CTGCTTTCCMAA--------

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA



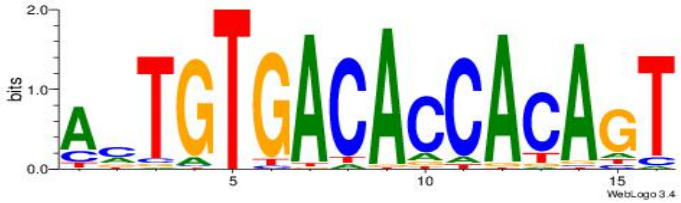
Dataset #: 4

Motif ID:	71
Motif name:	AmTGTGACACCACAGT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	12
Similarity score:	0.0938802

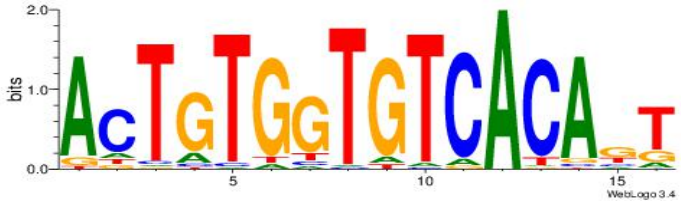
Alignment:

```
ACTGTGGTGTCACART
---CTGCTTTCCMAA-
```

Original motif Consensus sequence: AMTGTGACACCACAGT



Reverse complement motif Consensus sequence: ACTGTGGTGTCACART

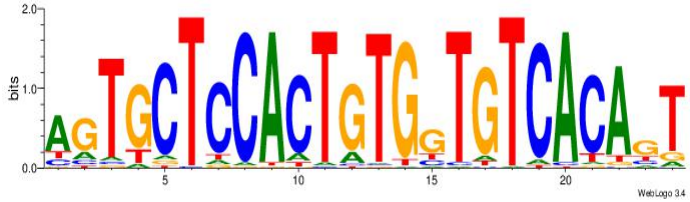


Dataset #:	4
Motif ID:	77
Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	12
Number of overlap:	12

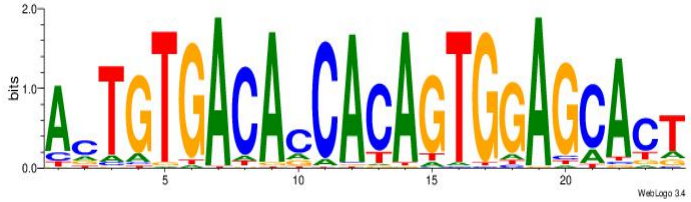
Similarity score: 0.0952465

Alignment:
AGTGCTCCACTGTGGTGTCACAGT
----------CTGCTTTCCMAA-

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT

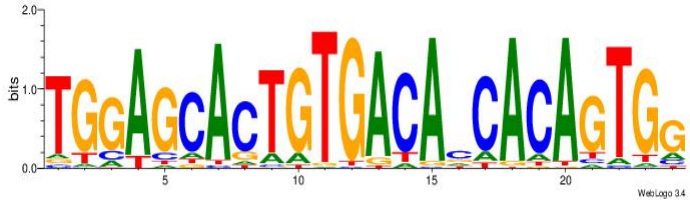


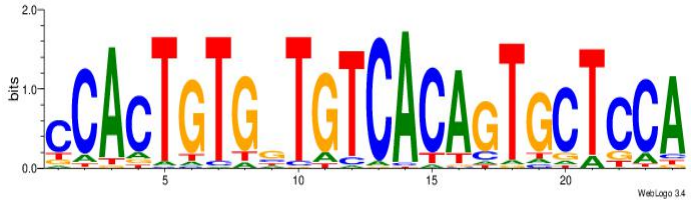
Dataset #: 4
Motif ID: 73
Motif name: TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 6
Number of overlap: 12
Similarity score: 0.0978041

Alignment:
CCACTGTGVTGTCACAGTGCTCCA
-----CTGCTTTCCMAA-------

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG

Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

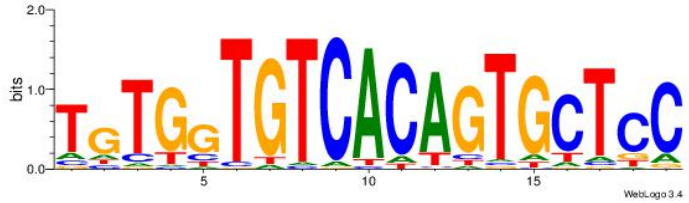




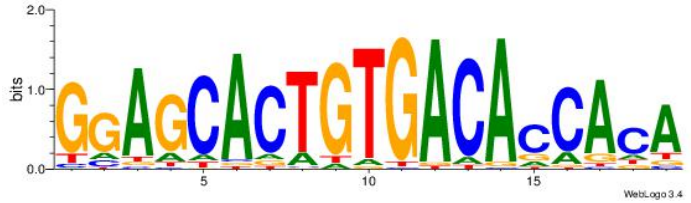
Dataset #: 4
Motif ID: 67
Motif name: TgTGgTGTCACAGTGCTCC
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 2
Number of overlap: 12
Similarity score: 0.100752

Alignment:
TGTGGTGTCACAGTGCTCC
-CTGCTTTCCMAA------

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA



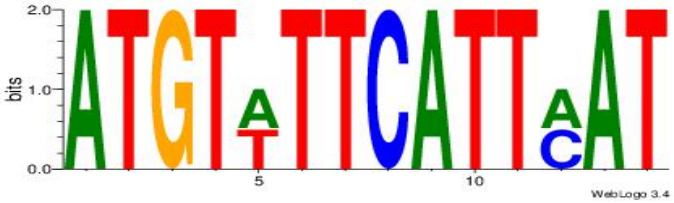
Dataset #: 1

Motif ID:	23
Motif name:	Motif 23
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	12
Similarity score:	0.10625

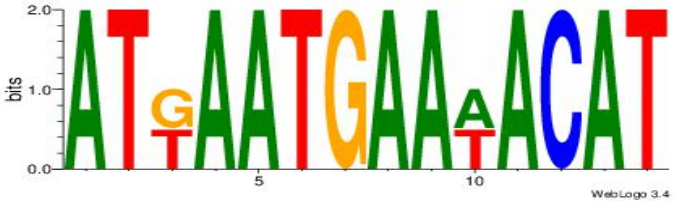
Alignment:

```
ATGTWTTCATTMAT
CTGCTTTCCMAA--
```

Original motif Consensus sequence: ATGTWTTCATTMAT



Reverse complement motif Consensus sequence: ATYAATGAAWACA

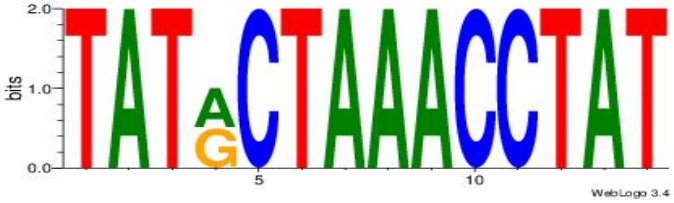


Dataset #:	1
Motif ID:	46
Motif name:	Motif 46
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	12
Similarity score:	0.10625

Alignment:
TATKCTAAACCTAT
-CTGCTTTCCMAA-

Original motif Consensus sequence: ATAGGTTTAGYATA

Reverse complement motif Consensus sequence: TATKCTAAACCTAT

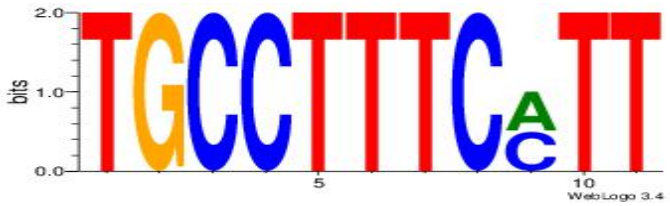


Dataset #:	1
Motif ID:	43
Motif name:	Motif 43
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.583523

Alignment:
AAKGAAAGGCA-
TTYGGAAAGCAG

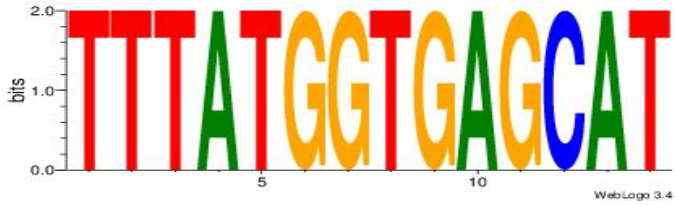
Original motif Consensus sequence: AAKGAAAGGCA

Reverse complement motif Consensus sequence: TGCCTTTCYTT

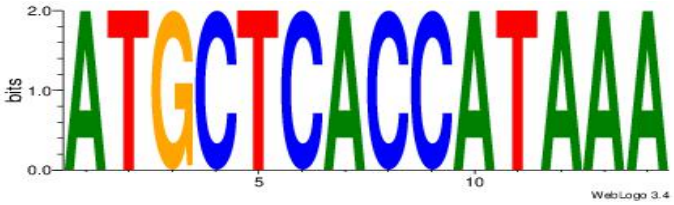


Dataset #: 1 Motif ID: 22 Motif name: Motif 22

Original motif Consensus sequence: TTTATGGTGAGCAT



Reverse complement motif Consensus sequence: ATGCTCACCATAA



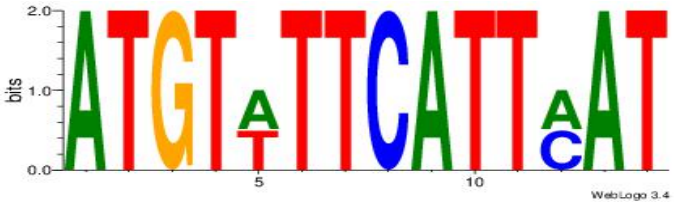
Best Matches for Motif ID 22 (Highest to Lowest)

Dataset #:	1
Motif ID:	23
Motif name:	Motif 23
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	14
Similarity score:	0.125

Alignment:

```
ATYAATGAAWACAT
TTTATGGTGAGCAT
```

Original motif Consensus sequence: ATGTWTTCATTMAT



Reverse complement motif Consensus sequence: ATYAATGAAWACA

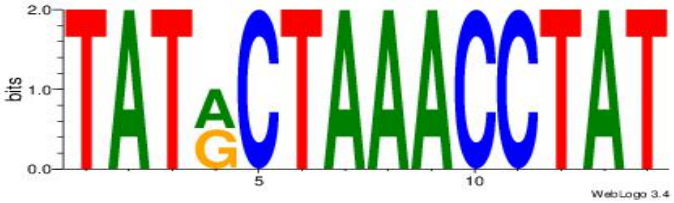
Dataset #:	1
Motif ID:	46
Motif name:	Motif 46
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	13
Similarity score:	0.586538

Alignment:

```
TATKCTAAACCTAT-
-ATGCTCACCATAAA
```

Original motif Consensus sequence: ATAGGTTTAGYATA

Reverse complement motif Consensus sequence: TATKCTAAACCTAT

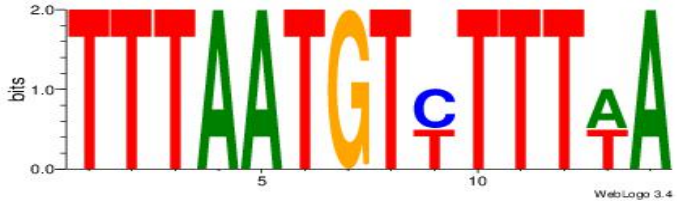


Dataset #:	1
Motif ID:	33
Motif name:	Motif 33
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	13
Similarity score:	0.625

Alignment:

```
TTTAATGTYTTTWA-
-TTTATGGTGAGCAT
```

Original motif Consensus sequence: TTTAATGTYTTTWA



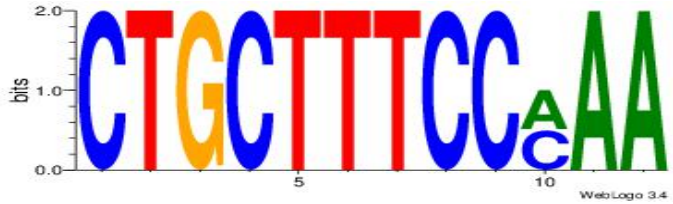
Reverse complement motif Consensus sequence: TWAAAKACATTAA

Dataset #:	1
Motif ID:	21
Motif name:	Motif 21
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	12

Similarity score: 1.09375

Alignment:
--CTGCTTTCCMAA
ATGCTCACCATAAA

Original motif Consensus sequence: CTGCTTTCCMAA



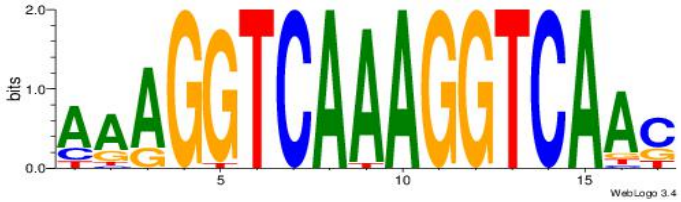
Reverse complement motif Consensus sequence: TTYGGAAAGCAG

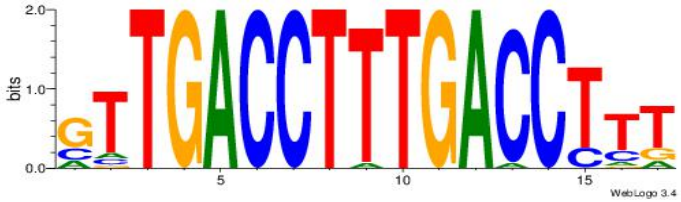
Dataset #: 3
Motif ID: 60
Motif name: NR1H2RXRA
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 6
Number of overlap: 12
Similarity score: 1.11167

Alignment:
AAAGGTCAAAGGTCAAC--
-----TTTATGGTGAGCAT

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC

Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT





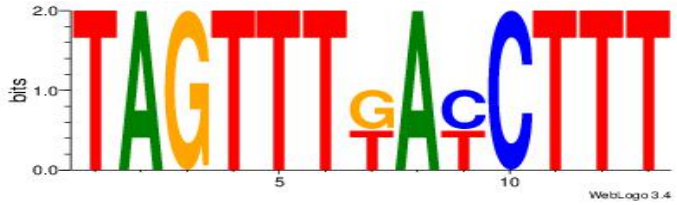
Dataset #:	1
Motif ID:	15
Motif name:	Motif 15
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	12
Similarity score:	1.11458

Alignment:

```
TAGTTTYAKCTTT--
-TTTATGGTGAGCAT
```

Original motif Consensus sequence: AAAGRTMAAACTA

Reverse complement motif Consensus sequence: TAGTTTYAKCTTT



Dataset #:	1
Motif ID:	31

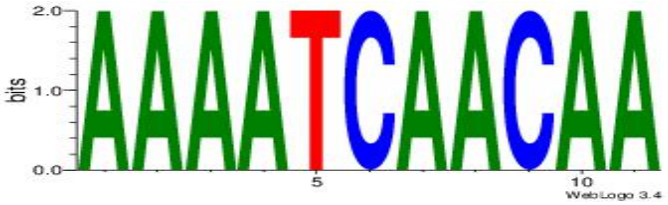
Motif name:	Motif 31
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	1.61364

Alignment:

```
---TTGTTGATTTT
TTTATGGTGAGCAT
```

Original motif Consensus sequence: TTGTTGATTTT

Reverse complement motif Consensus sequence: AAAATCAACAA

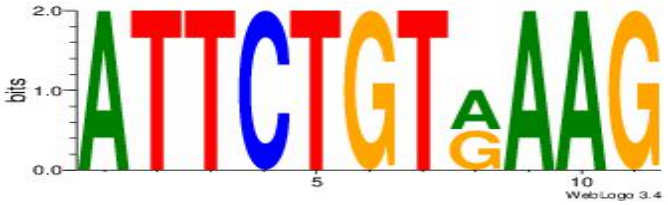


Dataset #:	1
Motif ID:	27
Motif name:	Motif 27
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	1.61364

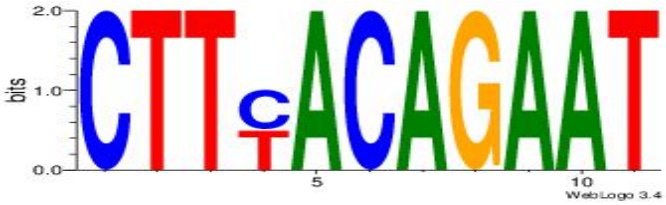
Alignment:

```
---CTTKACAGAAT
ATGCTCACCATAAA
```

Original motif Consensus sequence: ATTCTGTRAAG



Reverse complement motif Consensus sequence: CTTKACAGAAT



Dataset #:	1
Motif ID:	17
Motif name:	Motif 17
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	1.61364

Alignment:

```
---CTTCTGACCTC
ATGCTCACCATAAA
```

Original motif Consensus sequence: CTTCTGACCTC

Reverse complement motif Consensus sequence: GAGGTCAGAAG

Dataset #:	1
Motif ID:	24
Motif name:	Motif 24
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	1.625

Alignment:

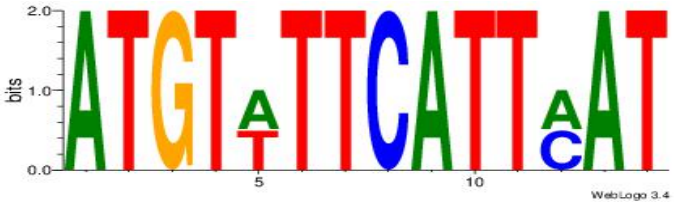
```
TTWATGWCTTT---
TTTATGGTGAGCAT
```

Original motif Consensus sequence: AAAGWCATWAA

Reverse complement motif Consensus sequence: TTWATGWCTTT

Dataset #: 1 Motif ID: 23 Motif name: Motif 23

Original motif Consensus sequence: ATGTWTTCATTMAT



Reverse complement motif Consensus sequence: ATYAATGAAWACA

Best Matches for Motif ID 23 (Highest to Lowest)

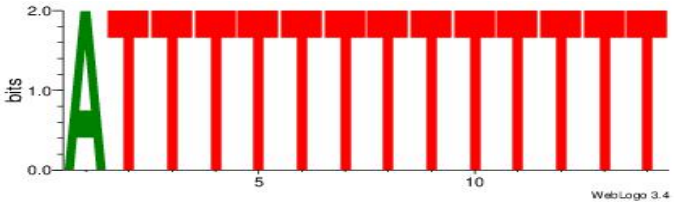
Dataset #:	2
Motif ID:	49
Motif name:	Motif 49
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	14
Similarity score:	0.0825893

Alignment:

```
ATTTTTTTTTTTTT
ATGTWTTCATTMAT
```

Original motif Consensus sequence: AAAAAAAAAAAAAT

Reverse complement motif Consensus sequence: ATTTTTTTTTTTTT

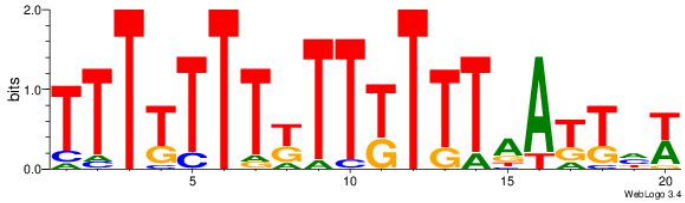


Dataset #:	5
Motif ID:	94
Motif name:	TFM13
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	14
Similarity score:	0.0876913

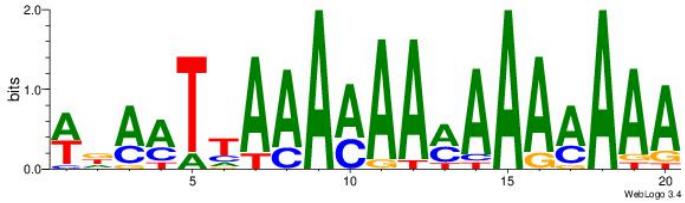
Alignment:

```
WHAATTAAARAARAAAAAAA
---ATYAATGAAWACAT---
```

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW



Reverse complement motif Consensus sequence: WHAATTAAARAARAAAAAAA

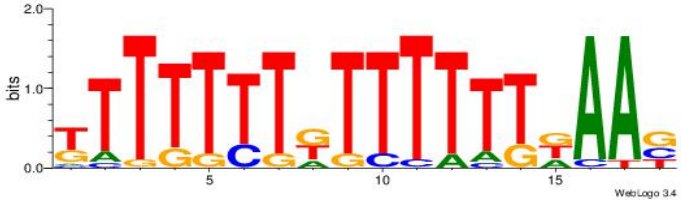


Dataset #:	5
Motif ID:	91
Motif name:	TFM3
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4

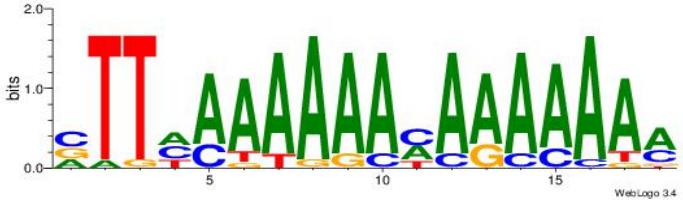
Number of overlap: 14
Similarity score: 0.0959821

Alignment:
BTTHAAAAAAYAAAAAAR
-ATYAATGAAWACAT---

Original motif Consensus sequence: KTTTTTTKTTTTTTDAAB



Reverse complement motif Consensus sequence: BTTHAAAAAAYAAAAAAR

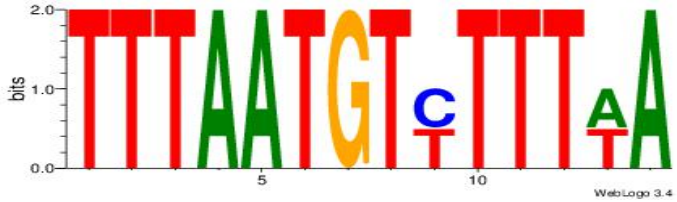


Dataset #: 1
Motif ID: 33
Motif name: Motif 33
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 1
Number of overlap: 14
Similarity score: 0.109375

Alignment:
TWAAAKACATTAAA
ATGTWTTCATTMAT

Original motif Consensus sequence: TTTAATGTYTTTWA

Reverse complement motif Consensus sequence: TWAAAKACATTAA

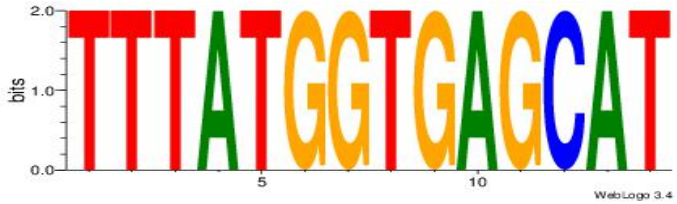


Dataset #:	1
Motif ID:	22
Motif name:	Motif 22
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	14
Similarity score:	0.109375

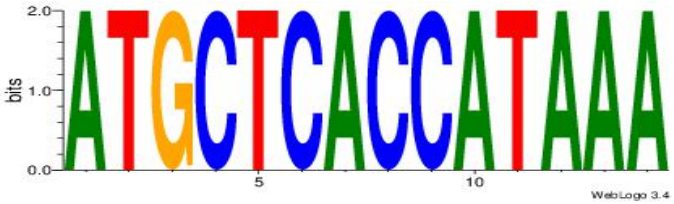
Alignment:

```
ATGCTCACCATAAA
ATGTWTTCATTMAT
```

Original motif Consensus sequence: TTTATGGTGAGCAT



Reverse complement motif Consensus sequence: ATGCTCACCATAA



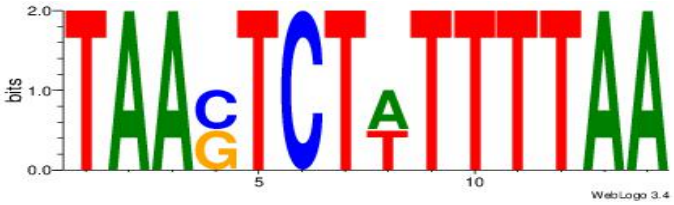
Dataset #:	1
Motif ID:	45

Motif name:	Motif 45
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	13
Similarity score:	0.590144

Alignment:

```
TAASTCTWTTTTAA-
-ATGTWTTCATTMAT
```

Original motif Consensus sequence: TAASTCTWTTTTAA



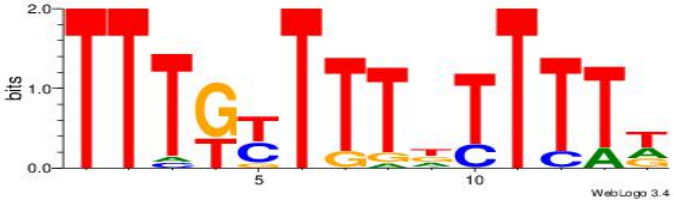
Reverse complement motif Consensus sequence: TTAAAAWAGASTT

Dataset #:	1
Motif ID:	4
Motif name:	Motif 4
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	13
Similarity score:	0.601683

Alignment:
HAAAAHAAARMAAA-
-ATYAATGAAWACAT

Original motif Consensus sequence: HAAAAHAAARMAAA

Reverse complement motif Consensus sequence: TTTRKTTTHTTTTH

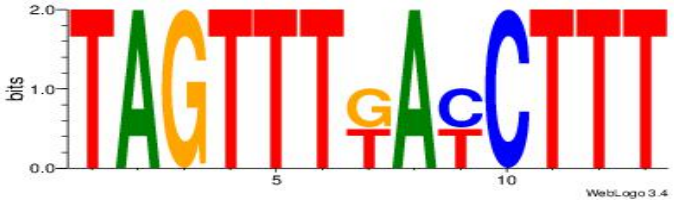


Dataset #:	1
Motif ID:	15
Motif name:	Motif 15
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	13
Similarity score:	0.609375

Alignment:
-AAAGRTMAAACTA
ATYAATGAAWACAT

Original motif Consensus sequence: AAAGRTMAAACTA

Reverse complement motif Consensus sequence: TAGTTTYAKCTTT



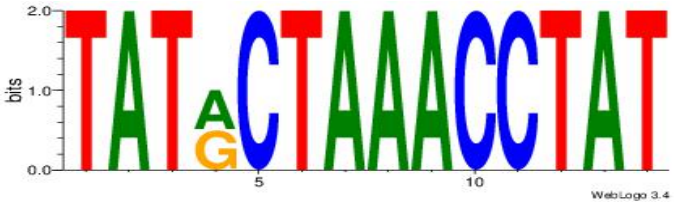
Dataset #:	1
Motif ID:	46
Motif name:	Motif 46
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	12
Similarity score:	1.09896

Alignment:

```
--TATKCTAAACCTAT
ATYAATGAAWACAT--
```

Original motif Consensus sequence: ATAGGTTTAGYATA

Reverse complement motif Consensus sequence: TATKCTAAACCTAT



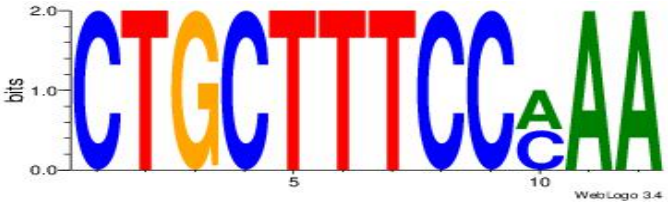
Dataset #:	1
Motif ID:	21

Motif name:	Motif 21
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	12
Similarity score:	1.10938

Alignment:

```
CTGCTTTCCMAA--
ATGTWTTCATTMAT
```

Original motif Consensus sequence: CTGCTTTCCMAA



Reverse complement motif Consensus sequence: TTYGGAAAGCAG

Dataset #: 1 Motif ID: 24 Motif name: Motif 24

Original motif Consensus sequence: AAAGWCATWAA

Reverse complement motif Consensus sequence: TTWATGWCTTT

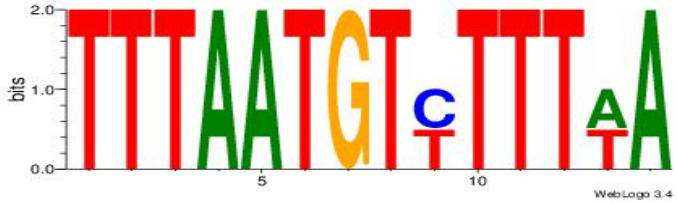
Best Matches for Motif ID 24 (Highest to Lowest)

Dataset #:	1
Motif ID:	33
Motif name:	Motif 33
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	11
Similarity score:	0.0340909

Alignment:

```
TWAAAKACATTAAA
--AAAGWCATWAA-
```

Original motif Consensus sequence: TTTAATGTYTTTWA



Reverse complement motif Consensus sequence: TWAAAKACATTAA

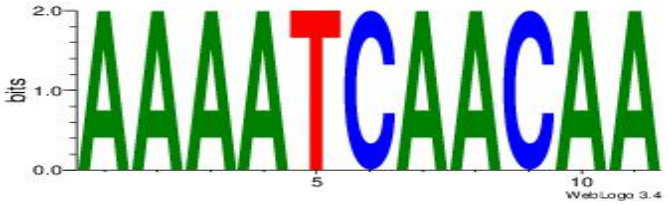
Dataset #:	1
Motif ID:	31
Motif name:	Motif 31
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	11

Similarity score: 0.0795455

Alignment:
AAAATCAACAA
AAAGWCATWAA

Original motif Consensus sequence: TTGTTGATTTT

Reverse complement motif Consensus sequence: AAAATCAACAA

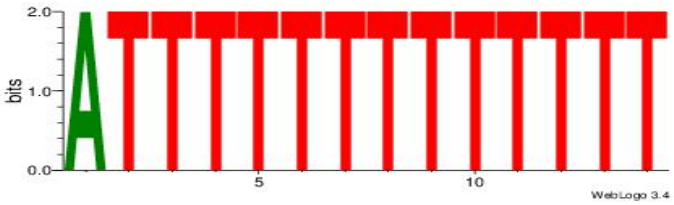


Dataset #: 2
Motif ID: 49
Motif name: Motif 49
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 1
Number of overlap: 11
Similarity score: 0.0909091

Alignment:
AAAAAAAAAAAAAT
AAAGWCATWAA---

Original motif Consensus sequence: AAAAAAAAAAAAAT

Reverse complement motif Consensus sequence: ATTTTTTTTTTTTT



Dataset #:	1
Motif ID:	30
Motif name:	Motif 30
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0909091

Alignment:

```
AAAAGCAGCAA
AAAGWCATWAA
```

Original motif Consensus sequence: TTGCTGCTTTT

Reverse complement motif Consensus sequence: AAAAGCAGCAA

Dataset #:	1
Motif ID:	13

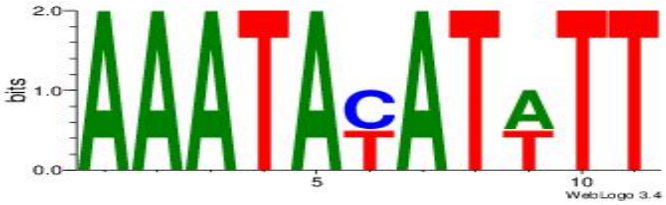
Motif name:	Motif 13
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0909091

Alignment:

```
AAATAKATWTT
AAAGWCATWAA
```

Original motif Consensus sequence: AAWATRTATTT

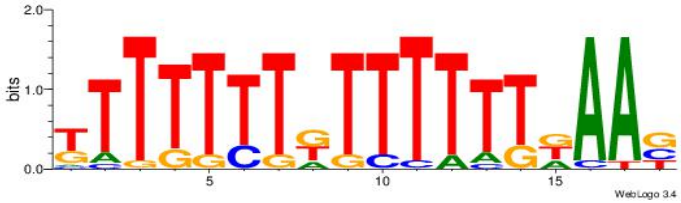
Reverse complement motif Consensus sequence: AAATAKATWTT



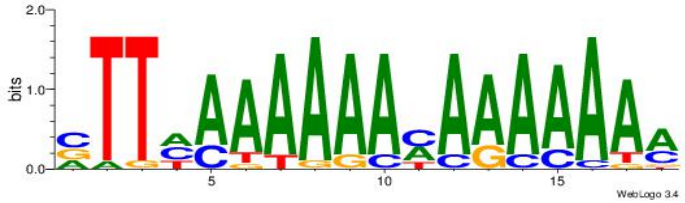
Dataset #:	5
Motif ID:	91
Motif name:	TFM3
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	6
Number of overlap:	11
Similarity score:	0.0951705

Alignment:
KTTTTTTKTTTTTTDAAB
--TTWATGWCTTT-----

Original motif Consensus sequence: KTTTTTTKTTTTTTDAAB



Reverse complement motif Consensus sequence: BTTHAAAAAAYAAAAAAR

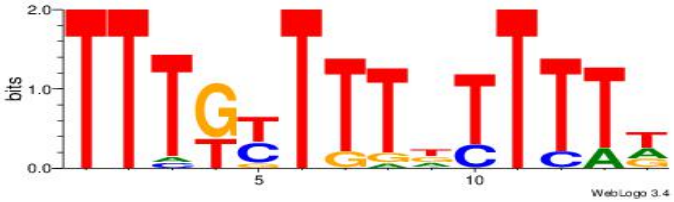


Dataset #:	1
Motif ID:	4
Motif name:	Motif 4
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	11
Similarity score:	0.0977273

Alignment:
TTTRKTTTHTTTTH
-TTWATGWCTTT--

Original motif Consensus sequence: HAAAAHAAARMAAA

Reverse complement motif Consensus sequence: TTTRKTTTHTTTTH

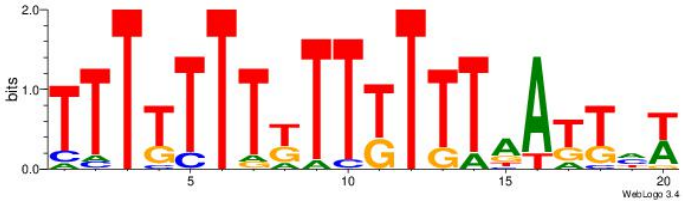


Dataset #:	5
Motif ID:	94
Motif name:	TFM13
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	9
Number of overlap:	11
Similarity score:	0.099026

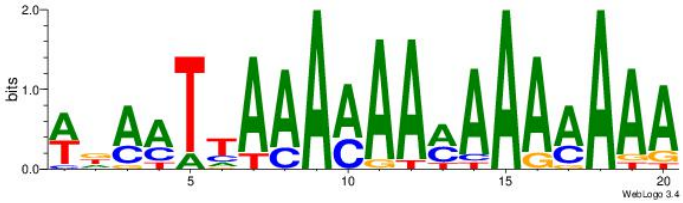
Alignment:

```
TTTTTTTKTTKTTTAATTHW
-TTWATGWCTTT--------
```

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW



Reverse complement motif Consensus sequence: WHAATTAAARAARAAAAAAA



Dataset #:	1

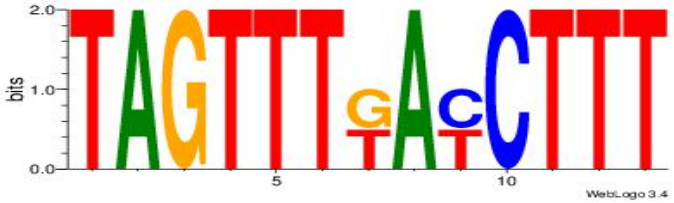
Motif ID:	15
Motif name:	Motif 15
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.102273

Alignment:

```
TAGTTTYAKCTTT
--TTWATGWCTTT
```

Original motif Consensus sequence: AAAGRTMAAACTA

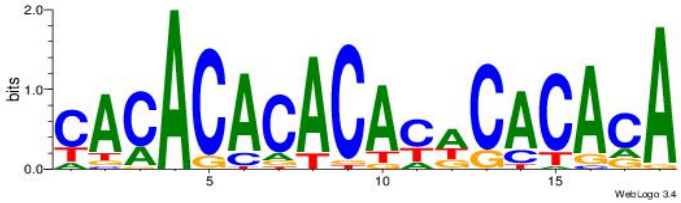
Reverse complement motif Consensus sequence: TAGTTTYAKCTTT



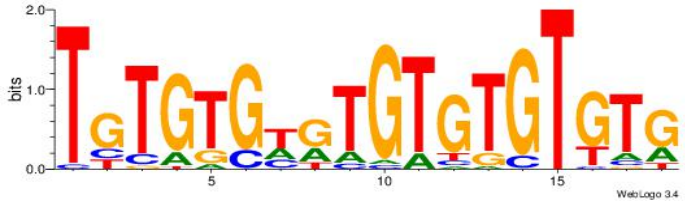
Dataset #:	5
Motif ID:	89
Motif name:	TFM1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	5
Number of overlap:	11
Similarity score:	0.112013

Alignment:
CACACACACACWCACACA
---AAAGWCATWAA----

Original motif Consensus sequence: CACACACACACWCACACA



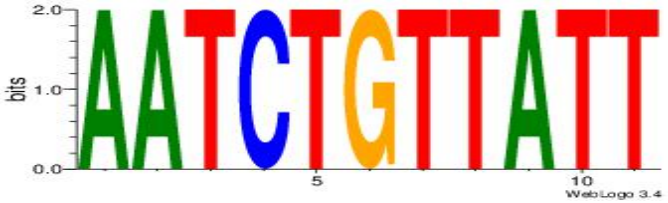
Reverse complement motif Consensus sequence: TGTGTGWGTGTGTGTGTG



Dataset #: 1 Motif ID: 25 Motif name: Motif 25

Original motif Consensus sequence: AATAACAGATT

Reverse complement motif Consensus sequence: AATCTGTTATT



Best Matches for Motif ID 25 (Highest to Lowest)

Dataset #:	1
Motif ID:	7
Motif name:	Motif 7
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward

Position number: 1
Number of overlap: 11
Similarity score: 0.0482955

Alignment:
AATAGYATTTT
AATAACAGATT

Original motif Consensus sequence: AAAATKCTATT

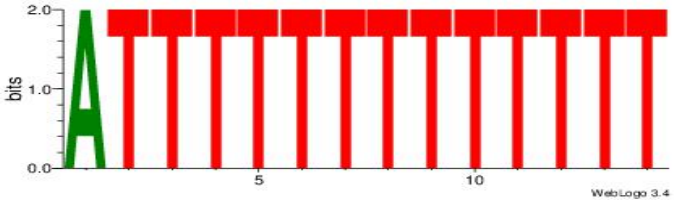
Reverse complement motif Consensus sequence: AATAGYATTTT

Dataset #: 2
Motif ID: 49
Motif name: Motif 49
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 4
Number of overlap: 11
Similarity score: 0.0596591

Alignment:
ATTTTTTTTTTTTT
AATCTGTTATT---

Original motif Consensus sequence: AAAAAAAAAAAAAT

Reverse complement motif Consensus sequence: ATTTTTTTTTTTTT

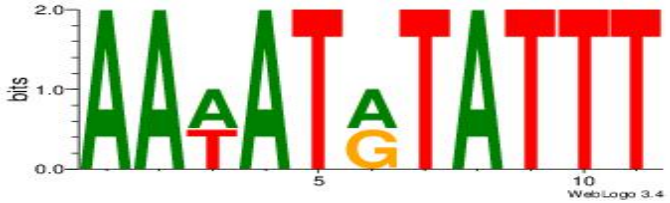


Dataset #:	1
Motif ID:	13
Motif name:	Motif 13
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.0596591

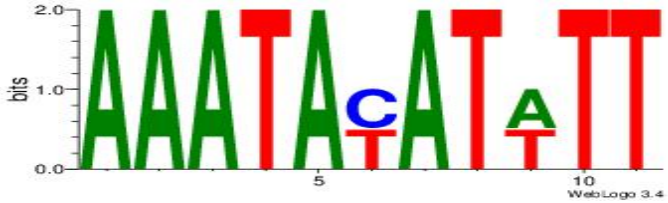
Alignment:

```
AAATAKATWTT
AATAACAGATT
```

Original motif Consensus sequence: AAWATRTATTT



Reverse complement motif Consensus sequence: AAATAKATWTT



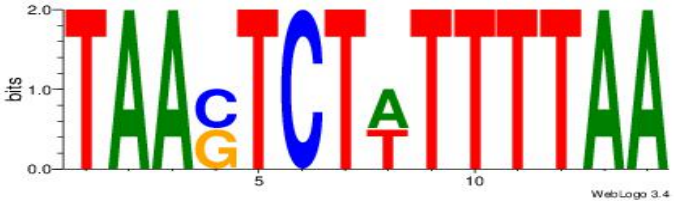
Dataset #: 1

Motif ID:	45
Motif name:	Motif 45
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	11
Similarity score:	0.0596591

Alignment:

```
TAASTCTWTTTTAA
--AATCTGTTATT-
```

Original motif Consensus sequence: TAASTCTWTTTTAA

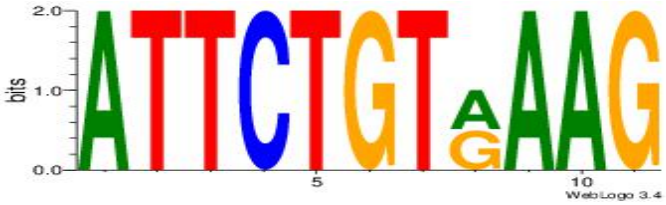


Reverse complement motif Consensus sequence: TTAAAAWAGASTT

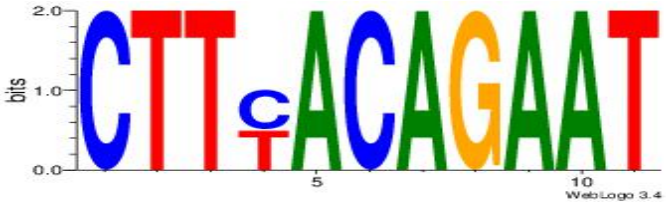
Dataset #:	1
Motif ID:	27
Motif name:	Motif 27
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0596591

Alignment:
CTTKACAGAAT
AATAACAGATT

Original motif Consensus sequence: ATTCTGTRAAG



Reverse complement motif Consensus sequence: CTTKACAGAAT

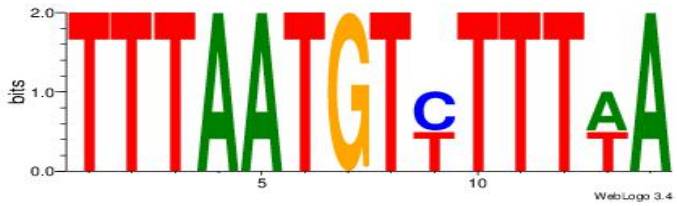


Dataset #:	1
Motif ID:	33
Motif name:	Motif 33
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.0710227

Alignment:
TWAAAKACATTAAA
AATAACAGATT---

Original motif Consensus sequence: TTTAATGTYTTTWA

Reverse complement motif Consensus sequence: TWAAAKACATTAA



Dataset #:	1
Motif ID:	10
Motif name:	Motif 10
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0710227

Alignment:

```
AAAMATTGTTT
AATAACAGATT
```

Original motif Consensus sequence: AAAMATTGTTT

Reverse complement motif Consensus sequence: AAACAATYTTT

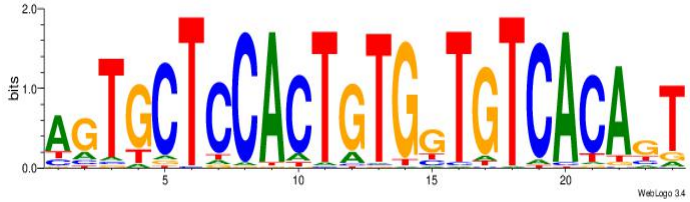
Dataset #:	4
Motif ID:	77

Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	6
Number of overlap:	11
Similarity score:	0.0798255

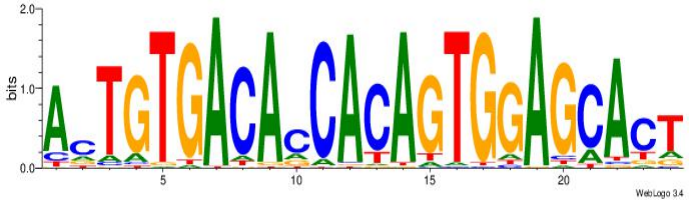
Alignment:

```
AGTGCTCCACTGTGGTGTCACAGT
--------AATCTGTTATT-----
```

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT

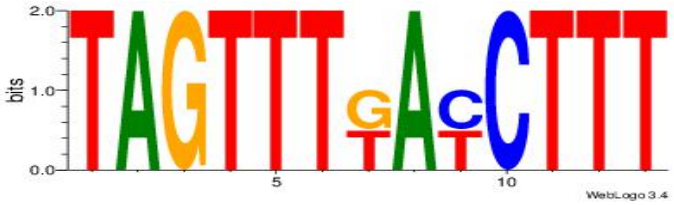


Dataset #:	1
Motif ID:	15
Motif name:	Motif 15
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	11
Similarity score:	0.0823864

Alignment:
AAAGRTMAAACTA
-AATAACAGATT-

Original motif Consensus sequence: AAAGRTMAAACTA

Reverse complement motif Consensus sequence: TAGTTTYAKCTTT

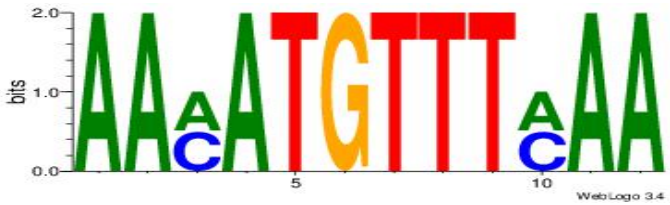


Dataset #:	1
Motif ID:	11
Motif name:	Motif 11
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.0823864

Alignment:
TTYAAACATYTT
AATAACAGATT-

Original motif Consensus sequence: AAMATGTTTMAA

Reverse complement motif Consensus sequence: TTYAAACATYTT



Dataset #: 1 Motif ID: 26 Motif name: Motif 26

Original motif Consensus sequence: CTGTTTTWAT

Reverse complement motif Consensus sequence: ATWAAAACAG

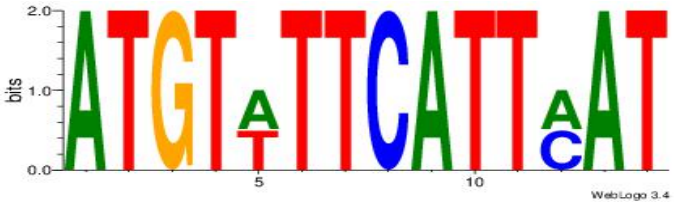
Best Matches for Motif ID 26 (Highest to Lowest)

Dataset #:	1
Motif ID:	23
Motif name:	Motif 23
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	5
Number of overlap:	10
Similarity score:	0.0625

Alignment:

```
ATGTWTTCATTMAT
CTGTTTTWAT----
```

Original motif Consensus sequence: ATGTWTTCATTMAT



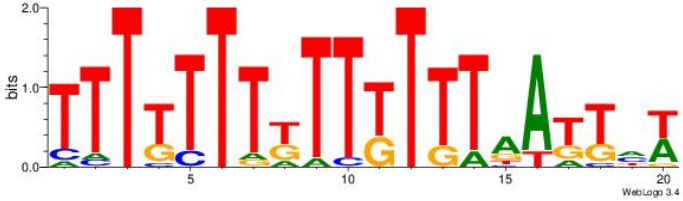
Reverse complement motif Consensus sequence: ATYAATGAAWACA

Dataset #:	5
Motif ID:	94
Motif name:	TFM13
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	8
Number of overlap:	10
Similarity score:	0.0821429

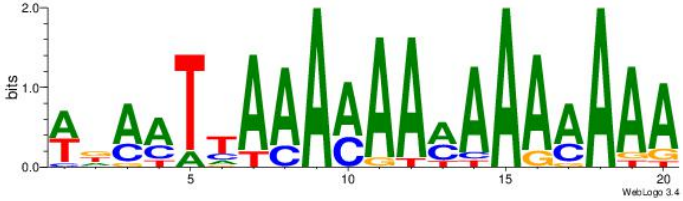
Alignment:

```
WHAATTAAARAARAAAAAAA
---ATWAAAACAG-------
```

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW



Reverse complement motif Consensus sequence: WHAATTAAARAARAAAAAAA



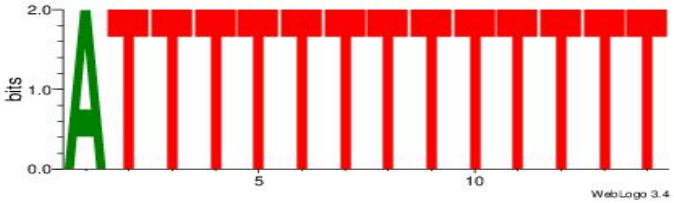
Dataset #:	2
Motif ID:	49
Motif name:	Motif 49
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	10
Similarity score:	0.0875

Alignment:

```
ATTTTTTTTTTTTT
---CTGTTTTWAT-
```

Original motif Consensus sequence: AAAAAAAAAAAAAT

Reverse complement motif Consensus sequence: ATTTTTTTTTTTTT

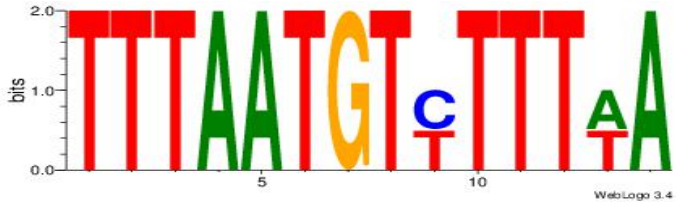


Dataset #:	1
Motif ID:	33
Motif name:	Motif 33
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	10

Similarity score: 0.0875

Alignment:
TTTAATGTYTTTWA
----CTGTTTTWAT

Original motif Consensus sequence: TTTAATGTYTTTWA



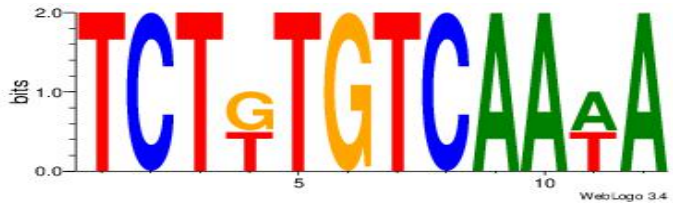
Reverse complement motif Consensus sequence: TWAAAKACATTAA

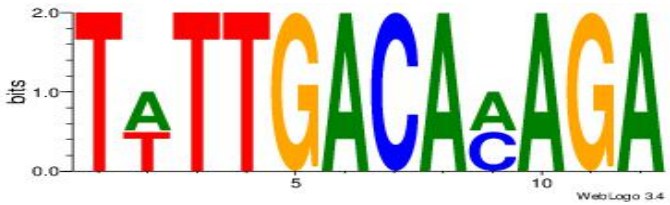
Dataset #: 1
Motif ID: 16
Motif name: Motif 16
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 2
Number of overlap: 10
Similarity score: 0.0875

Alignment:
TCTKTGTCAAWA
-CTGTTTTWAT-

Original motif Consensus sequence: TCTKTGTCAAWA

Reverse complement motif Consensus sequence: TWTTGACAYAGA





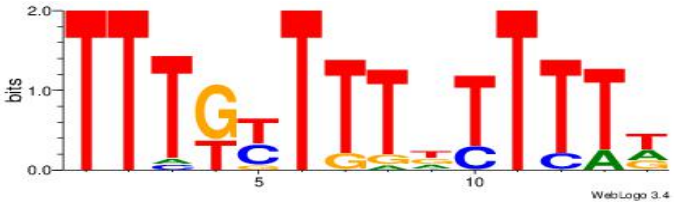
Dataset #:	1
Motif ID:	4
Motif name:	Motif 4
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	10
Similarity score:	0.09

Alignment:

```
TTTRKTTTHTTTTH
---CTGTTTTWAT-
```

Original motif Consensus sequence: HAAAAHAAARMAAA

Reverse complement motif Consensus sequence: TTTRKTTTHTTTTH



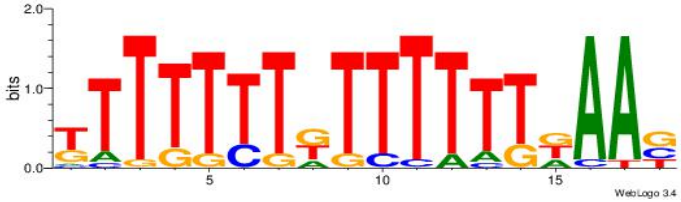
Dataset #:	5
Motif ID:	91

Motif name:	TFM3
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	4
Number of overlap:	10
Similarity score:	0.096875

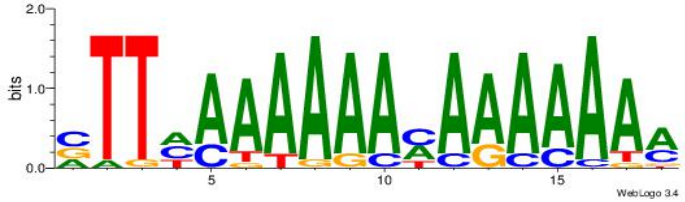
Alignment:

```
KTTTTTTKTTTTTTDAAB
-----CTGTTTTWAT---
```

Original motif Consensus sequence: KTTTTTTKTTTTTTDAAB



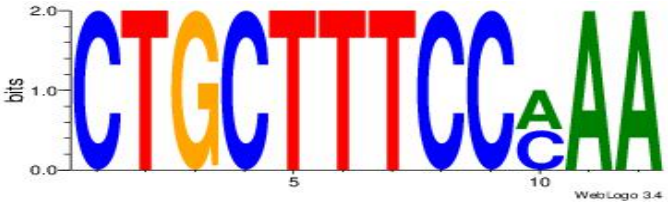
Reverse complement motif Consensus sequence: BTTHAAAAAAYAAAAAAR



Dataset #:	1
Motif ID:	21
Motif name:	Motif 21
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	10
Similarity score:	0.1

Alignment:
CTGCTTTCCMAA
CTGTTTTWAT--

Original motif Consensus sequence: CTGCTTTCCMAA



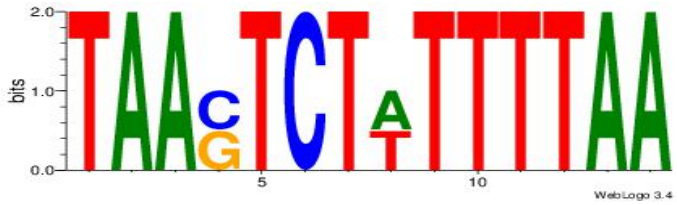
Reverse complement motif Consensus sequence: TTYGGAAAGCAG

Dataset #:	1
Motif ID:	45
Motif name:	Motif 45
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	10
Similarity score:	0.1125

Alignment:
TTAAAAWAGASTTA
-ATWAAAACAG---

Original motif Consensus sequence: TAASTCTWTTTTAA

Reverse complement motif Consensus sequence: TTAAAAWAGASTT



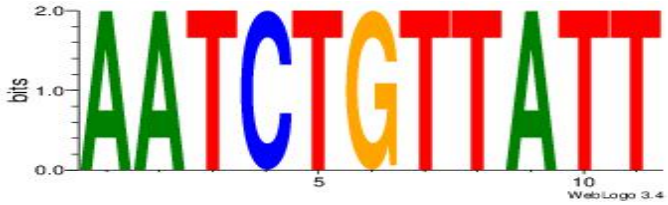
Dataset #:	1
Motif ID:	25
Motif name:	Motif 25
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	10
Similarity score:	0.1125

Alignment:

```
AATCTGTTATT
CTGTTTTWAT-
```

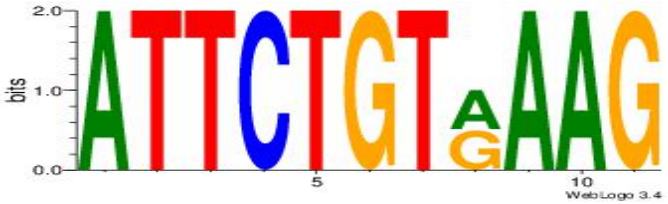
Original motif Consensus sequence: AATAACAGATT

Reverse complement motif Consensus sequence: AATCTGTTATT

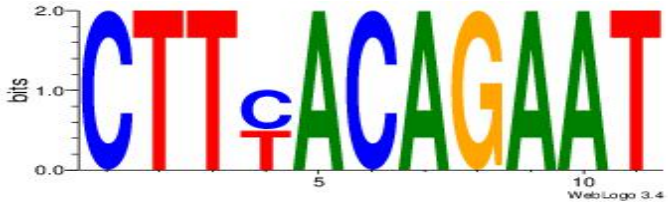


Dataset #: 1 Motif ID: 27 Motif name: Motif 27

Original motif Consensus sequence: ATTCTGTRAAG



Reverse complement motif Consensus sequence: CTTKACAGAAT



Best Matches for Motif ID 27 (Highest to Lowest)

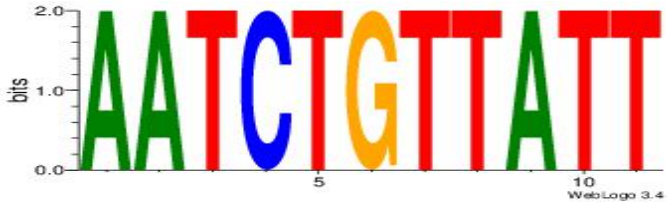
Dataset #:	1
Motif ID:	25
Motif name:	Motif 25
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.0596591

Alignment:

```
AATCTGTTATT
ATTCTGTRAAG
```

Original motif Consensus sequence: AATAACAGATT

Reverse complement motif Consensus sequence: AATCTGTTATT

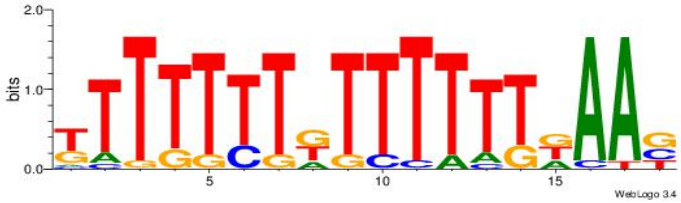


Dataset #:	5
Motif ID:	91
Motif name:	TFM3
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0696023

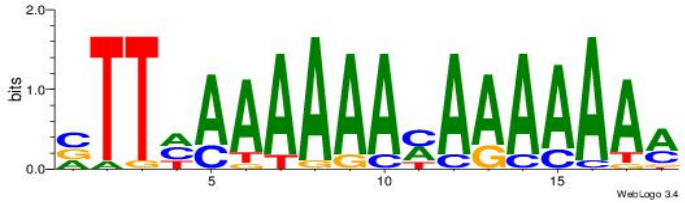
Alignment:

```
KTTTTTTKTTTTTTDAAB
-------ATTCTGTRAAG
```

Original motif Consensus sequence: KTTTTTTKTTTTTTDAAB



Reverse complement motif Consensus sequence: BTTHAAAAAAYAAAAAAR

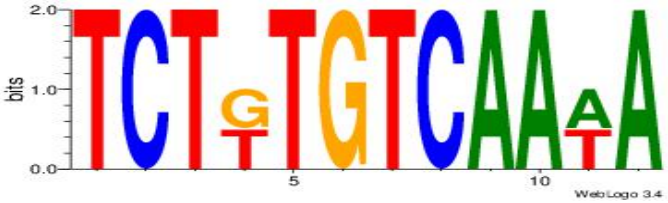


Dataset #:	1
Motif ID:	16
Motif name:	Motif 16
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1

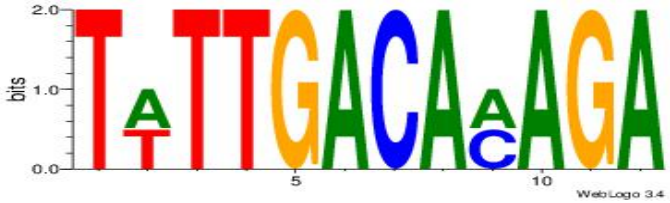
Number of overlap: 11
Similarity score: 0.0710227

Alignment:
TWTTGACAYAGA
-CTTKACAGAAT

Original motif Consensus sequence: TCTKTGTCAAWA



Reverse complement motif Consensus sequence: TWTTGACAYAGA



Dataset #: 4
Motif ID: 81
Motif name: ctatacggacg
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 1
Number of overlap: 11
Similarity score: 0.0710227

Alignment:
CGTCCGTATAG
ATTCTGTRAAG

Original motif Consensus sequence: CTATACGGACG

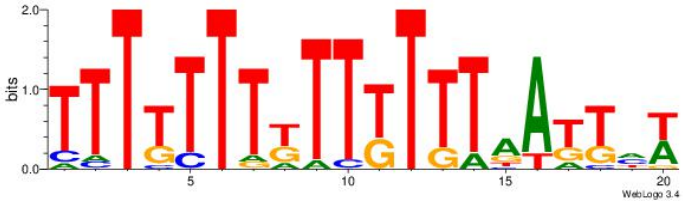
Reverse complement motif Consensus sequence: CGTCCGTATAG

Dataset #:	5
Motif ID:	94
Motif name:	TFM13
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	11
Similarity score:	0.080763

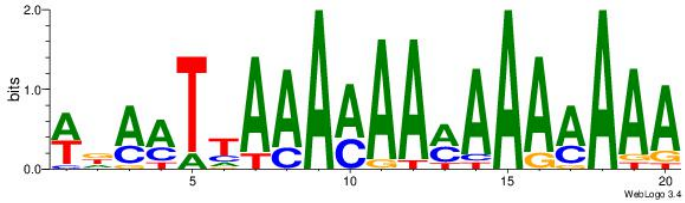
Alignment:

```
TTTTTTTKTTKTTTAATTHW
-------ATTCTGTRAAG--
```

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW



Reverse complement motif Consensus sequence: WHAATTAAARAARAAAAAAA



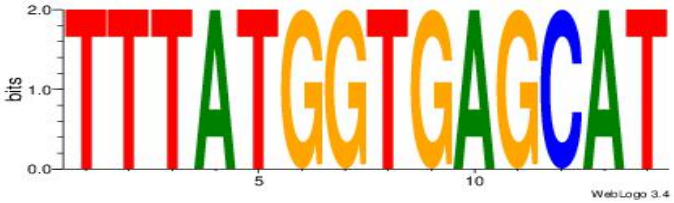
Dataset #: 1

Motif ID:	22
Motif name:	Motif 22
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.0823864

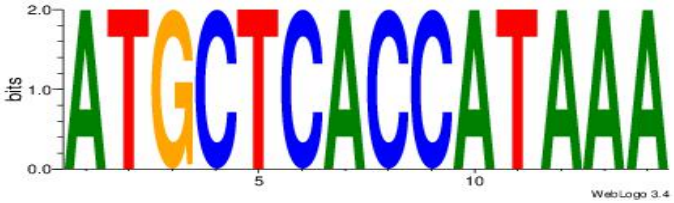
Alignment:

```
TTTATGGTGAGCAT
ATTCTGTRAAG---
```

Original motif Consensus sequence: TTTATGGTGAGCAT



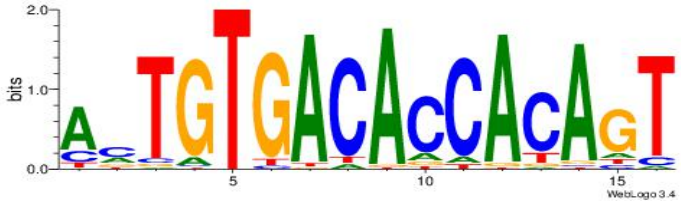
Reverse complement motif Consensus sequence: ATGCTCACCATAA



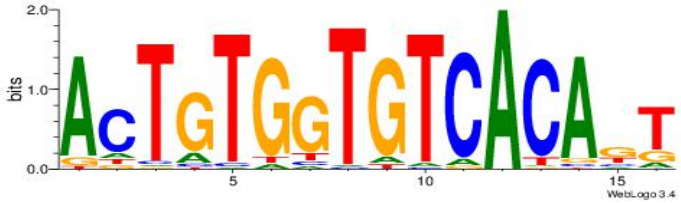
Dataset #:	4
Motif ID:	71
Motif name:	AmTGTGACACCACAGT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	11
Similarity score:	0.0901989

Alignment:
AMTGTGACACCACAGT
--CTTKACAGAAT---

Original motif Consensus sequence: AMTGTGACACCACAGT



Reverse complement motif Consensus sequence: ACTGTGGTGTCACART

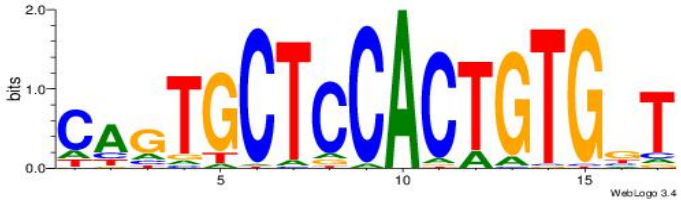


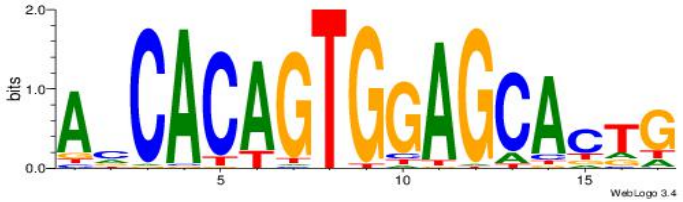
Dataset #:	4
Motif ID:	70
Motif name:	CagTGCTCCACTGTGgT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	6
Number of overlap:	11
Similarity score:	0.0910985

Alignment:
ABCACAGTGGAGCACTG
-ATTCTGTRAAG-----

Original motif Consensus sequence: CAGTGCTCCACTGTGBT

Reverse complement motif Consensus sequence: ABCACAGTGGAGCACTG



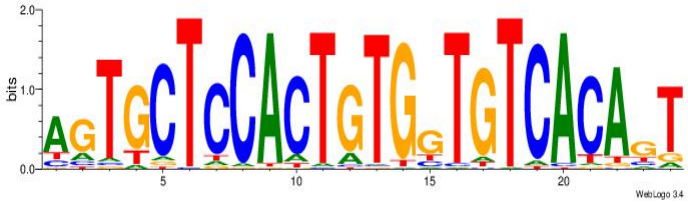


Dataset #:	4
Motif ID:	77
Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	12
Number of overlap:	11
Similarity score:	0.0921495

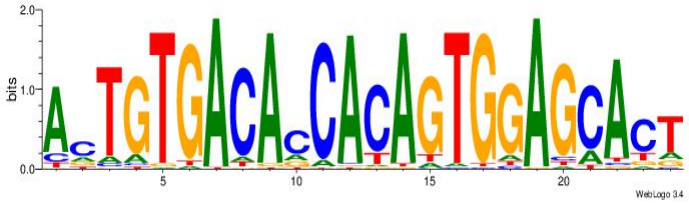
Alignment:

```
ACTGTGACACCACAGTGGAGCACT
--CTTKACAGAAT-----------
```

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT



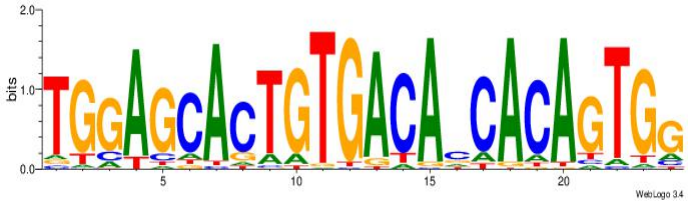
Dataset #:	4

Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	9
Number of overlap:	11
Similarity score:	0.0925215

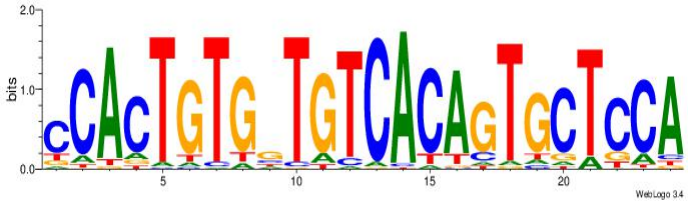
Alignment:

```
TGGAGCACTGTGACAVCACAGTGG
--------CTTKACAGAAT-----
```

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA



Dataset #: 1 Motif ID: 28 Motif name: Motif 28

Original motif Consensus sequence: ATTTAGTAAA

Reverse complement motif Consensus sequence: TTTACTAAAT

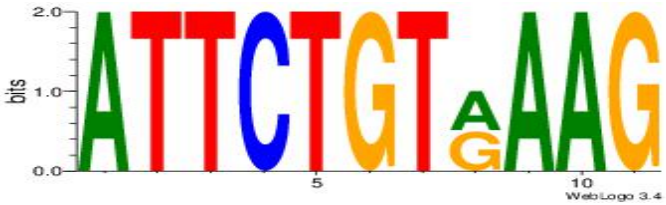
Best Matches for Motif ID 28 (Highest to Lowest)

Dataset #:	1
Motif ID:	27
Motif name:	Motif 27
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	10
Similarity score:	0.0625

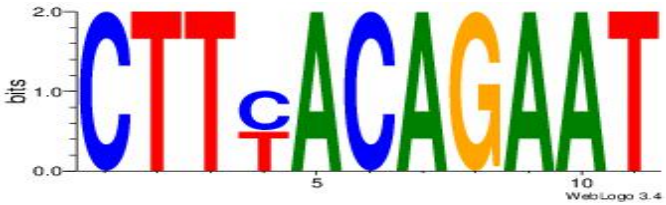
Alignment:

```
CTTKACAGAAT
-TTTACTAAAT
```

Original motif Consensus sequence: ATTCTGTRAAG



Reverse complement motif Consensus sequence: CTTKACAGAAT



Dataset #:	1
Motif ID:	46
Motif name:	Motif 46
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif

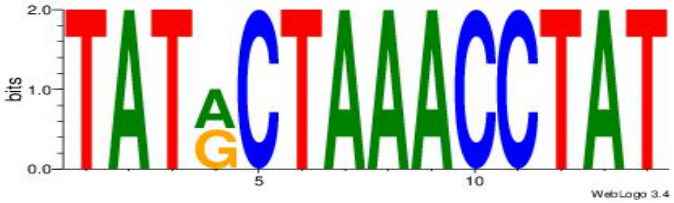
Direction:	Forward
Position number:	5
Number of overlap:	10
Similarity score:	0.0625

Alignment:

```
ATAGGTTTAGYATA
----ATTTAGTAAA
```

Original motif Consensus sequence: ATAGGTTTAGYATA

Reverse complement motif Consensus sequence: TATKCTAAACCTAT

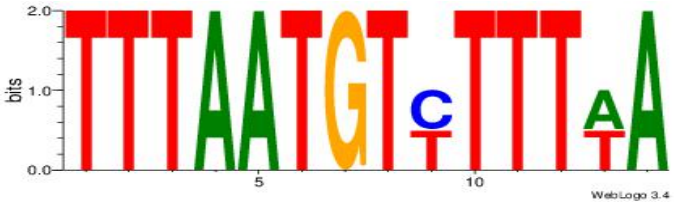


Dataset #:	1
Motif ID:	33
Motif name:	Motif 33
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	5
Number of overlap:	10
Similarity score:	0.0875

Alignment:

```
TWAAAKACATTAAA
----ATTTAGTAAA
```

Original motif Consensus sequence: TTTAATGTYTTTWA



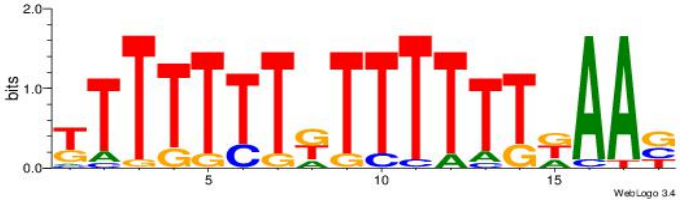
Reverse complement motif Consensus sequence: TWAAAKACATTAA

Dataset #:	5
Motif ID:	91
Motif name:	TFM3
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	8
Number of overlap:	10
Similarity score:	0.09375

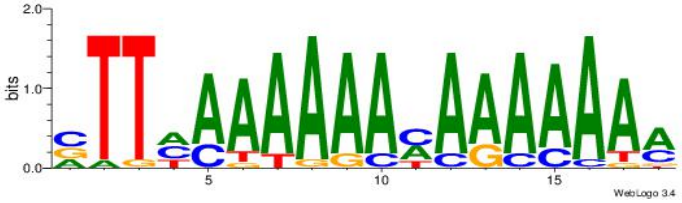
Alignment:

```
BTTHAAAAAAYAAAAAAR
-TTTACTAAAT-------
```

Original motif Consensus sequence: KTTTTTTKTTTTTTDAAB



Reverse complement motif Consensus sequence: BTTHAAAAAAYAAAAAAR

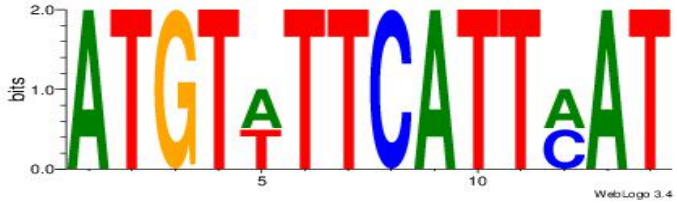


Dataset #:	1
Motif ID:	23
Motif name:	Motif 23
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	10
Similarity score:	0.1

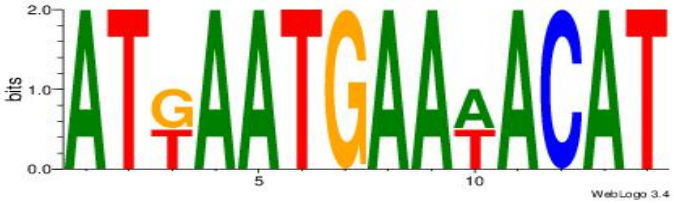
Alignment:

```
ATGTWTTCATTMAT
TTTACTAAAT----
```

Original motif Consensus sequence: ATGTWTTCATTMAT



Reverse complement motif Consensus sequence: ATYAATGAAWACA

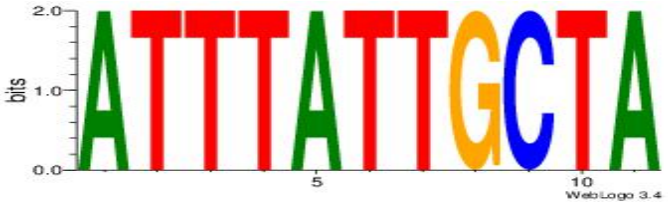


Dataset #:	1
Motif ID:	29
Motif name:	Motif 29
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	10

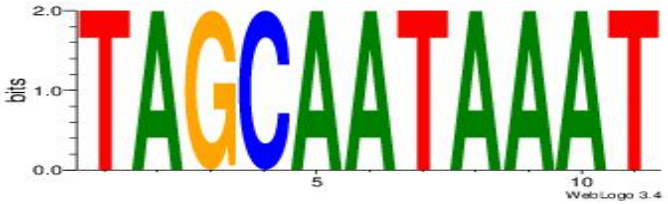
Similarity score: 0.1

Alignment:
ATTTATTGCTA
ATTTAGTAAA-

Original motif Consensus sequence: ATTTATTGCTA



Reverse complement motif Consensus sequence: TAGCAATAAAT

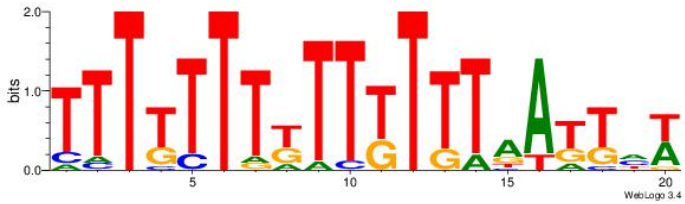


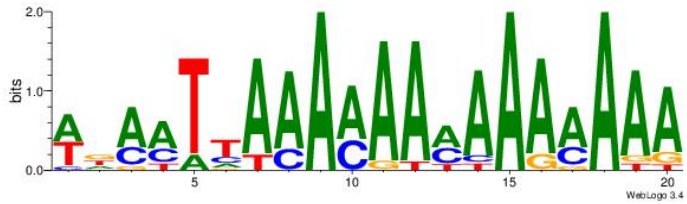
Dataset #: 5
Motif ID: 94
Motif name: TFM13
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 3
Number of overlap: 10
Similarity score: 0.105357

Alignment:
WHAATTAAARAARAAAAAAA
--ATTTAGTAAA--------

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW

Reverse complement motif Consensus sequence: WHAATTAAARAARAAAAAAA



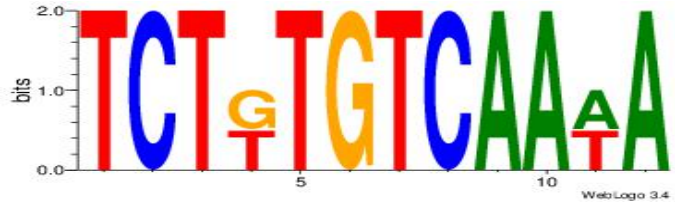


Dataset #:	1
Motif ID:	16
Motif name:	Motif 16
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	10
Similarity score:	0.1125

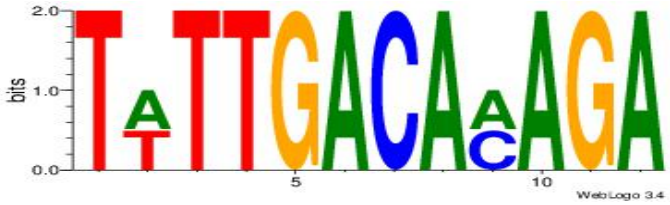
Alignment:

```
TCTKTGTCAAWA
ATTTAGTAAA--
```

Original motif Consensus sequence: TCTKTGTCAAWA



Reverse complement motif Consensus sequence: TWTTGACAYAGA



Dataset #:	1
Motif ID:	14

Motif name:	Motif 14
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	10
Similarity score:	0.1125

Alignment:

```
TAATKATATAA
-ATTTAGTAAA
```

Original motif Consensus sequence: TAATKATATAA

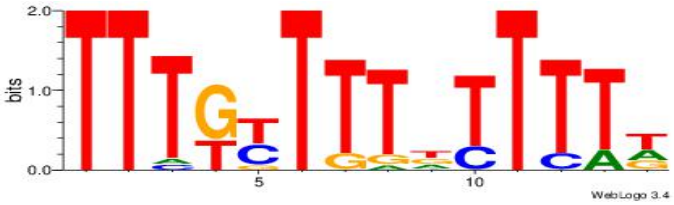
Reverse complement motif Consensus sequence: TTATATYATTA

Dataset #:	1
Motif ID:	4
Motif name:	Motif 4
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	5
Number of overlap:	10
Similarity score:	0.115

Alignment:
TTTRKTTTHTTTTH
TTTACTAAAT----

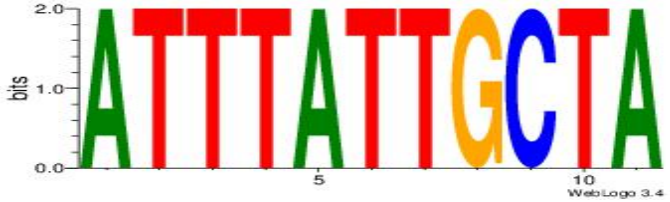
Original motif Consensus sequence: HAAAAHAAARMAAA

Reverse complement motif Consensus sequence: TTTRKTTTHTTTTH

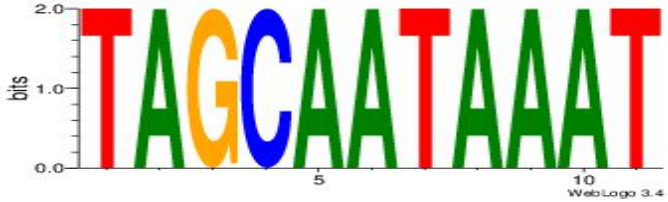


Dataset #: 1 Motif ID: 29 Motif name: Motif 29

Original motif Consensus sequence: ATTTATTGCTA



Reverse complement motif Consensus sequence: TAGCAATAAAT



Best Matches for Motif ID 29 (Highest to Lowest)

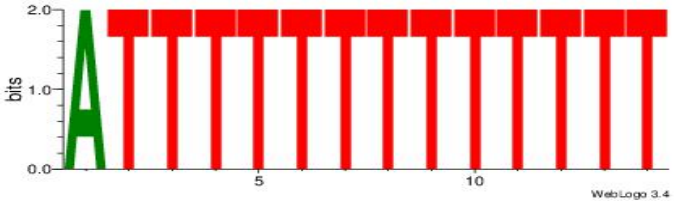
Dataset #:	2
Motif ID:	49
Motif name:	Motif 49
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1

Number of overlap: 11
Similarity score: 0.0909091

Alignment:
```
AAAAAAAAAAAAAT
---TAGCAATAAAT
```

Original motif Consensus sequence: AAAAAAAAAAAAAT

Reverse complement motif Consensus sequence: ATTTTTTTTTTTTT

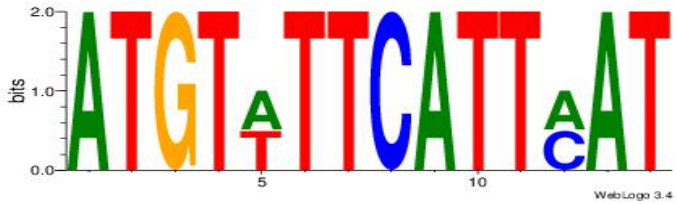


Dataset #: 1
Motif ID: 23
Motif name: Motif 23
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 1
Number of overlap: 11
Similarity score: 0.102273

Alignment:
```
ATGTWTTCATTMAT
ATTTATTGCTA---
```

Original motif Consensus sequence: ATGTWTTCATTMAT

Reverse complement motif Consensus sequence: ATYAATGAAWACA



Dataset #:	1
Motif ID:	14
Motif name:	Motif 14
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.102273

Alignment:

```
TAATKATATAA
TAGCAATAAAT
```

Original motif Consensus sequence: TAATKATATAA

Reverse complement motif Consensus sequence: TTATATYATTA

Dataset #:	1
Motif ID:	15

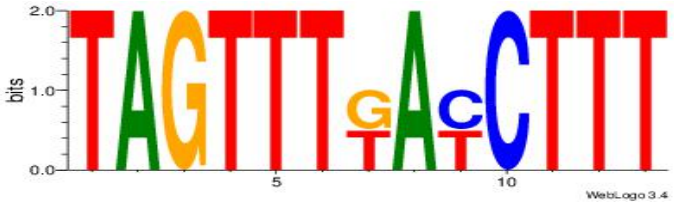
Motif name:	Motif 15
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	11
Similarity score:	0.113636

Alignment:

```
AAAGRTMAAACTA
-TAGCAATAAAT-
```

Original motif Consensus sequence: AAAGRTMAAACTA

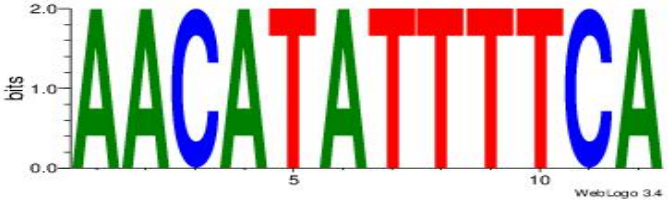
Reverse complement motif Consensus sequence: TAGTTTYAKCTTT



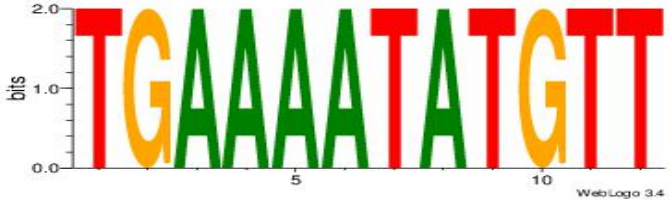
Dataset #:	1
Motif ID:	9
Motif name:	Motif 9
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	11
Similarity score:	0.113636

Alignment:
TGAAAATATGTT
TAGCAATAAAT-

Original motif Consensus sequence: AACATATTTTCA



Reverse complement motif Consensus sequence: TGAAAATATGTT



Dataset #:	1
Motif ID:	10
Motif name:	Motif 10
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.113636

Alignment:
AAAMATTGTTT
ATTTATTGCTA

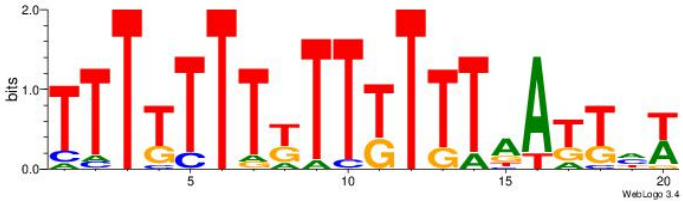
Original motif Consensus sequence: AAAMATTGTTT

Reverse complement motif Consensus sequence: AAACAATYTTT

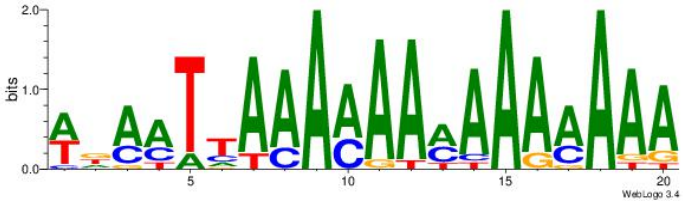
Dataset #: 5
Motif ID: 94
Motif name: TFM13
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 7
Number of overlap: 11
Similarity score: 0.113636

Alignment:
TTTTTTTKTTKTTTAATTHW
---ATTTATTGCTA------

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW



Reverse complement motif Consensus sequence:
WHAATTAAARAARAAAAAAA



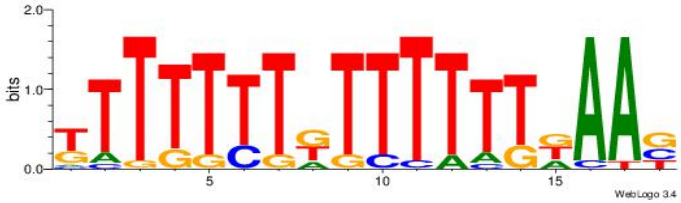
Dataset #: 5

Motif ID:	91
Motif name:	TFM3
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.120739

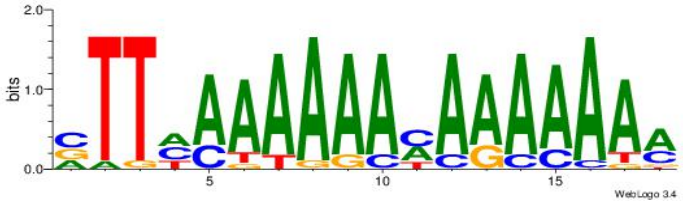
Alignment:

```
BTTHAAAAAAYAAAAAAR
-------TAGCAATAAAT
```

Original motif Consensus sequence: KTTTTTTKTTTTTTDAAB



Reverse complement motif Consensus sequence: BTTHAAAAAAYAAAAAAR

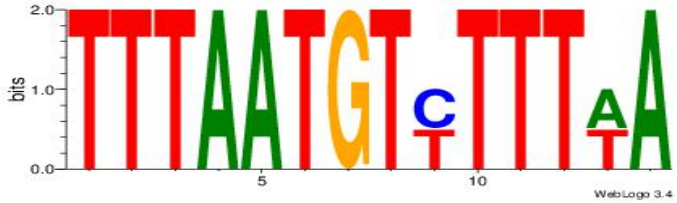


Dataset #:	1
Motif ID:	33
Motif name:	Motif 33
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11

Similarity score: 0.125

Alignment:
TTTAATGTYTTTWA
ATTTATTGCTA---

Original motif Consensus sequence: TTTAATGTYTTTWA



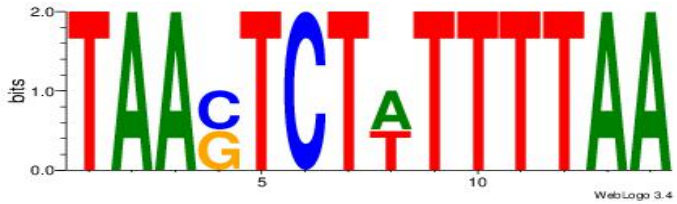
Reverse complement motif Consensus sequence: TWAAAKACATTAA

Dataset #: 1
Motif ID: 45
Motif name: Motif 45
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 4
Number of overlap: 11
Similarity score: 0.125

Alignment:
TTAAAAWAGASTTA
TAGCAATAAAT---

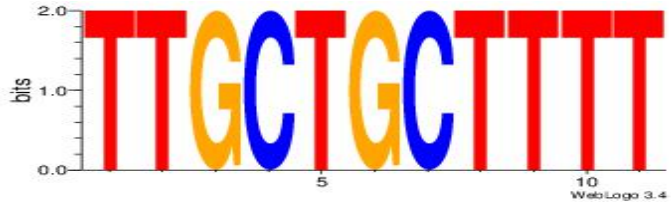
Original motif Consensus sequence: TAASTCTWTTTTAA

Reverse complement motif Consensus sequence: TTAAAAWAGASTT



Dataset #: 1 Motif ID: 30 Motif name: Motif 30

Original motif Consensus sequence: TTGCTGCTTTT



Reverse complement motif Consensus sequence: AAAAGCAGCAA

Best Matches for Motif ID 30 (Highest to Lowest)

Dataset #:	1
Motif ID:	31
Motif name:	Motif 31
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.0142045

Alignment:

```
TTGTTGATTTT
TTGCTGCTTTT
```

Original motif Consensus sequence: TTGTTGATTTT

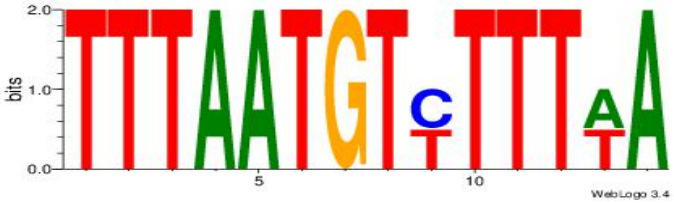
Reverse complement motif Consensus sequence: AAAATCAACAA

Dataset #:	1
Motif ID:	33
Motif name:	Motif 33
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	11
Similarity score:	0.0482955

Alignment:

```
TTTAATGTYTTTWA
-TTGCTGCTTTT--
```

Original motif Consensus sequence: TTTAATGTYTTTWA



Reverse complement motif Consensus sequence: TWAAAKACATTAA

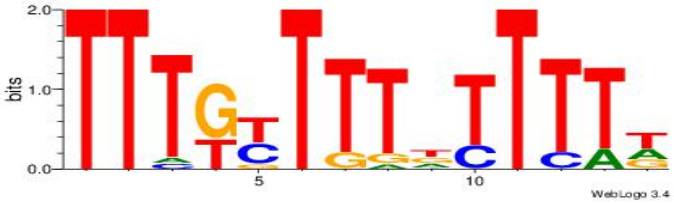
Dataset #:	1
Motif ID:	4
Motif name:	Motif 4
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	11
Similarity score:	0.0573864

Alignment:

```
TTTRKTTTHTTTTH
--TTGCTGCTTTT-
```

Original motif Consensus sequence: HAAAAHAAARMAAA

Reverse complement motif Consensus sequence: TTTRKTTTHTTTTH



Dataset #:	1
Motif ID:	24
Motif name:	Motif 24
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	11

Similarity score: 0.0596591

Alignment:
TTWATGWCTTT
TTGCTGCTTTT

Original motif Consensus sequence: AAAGWCATWAA

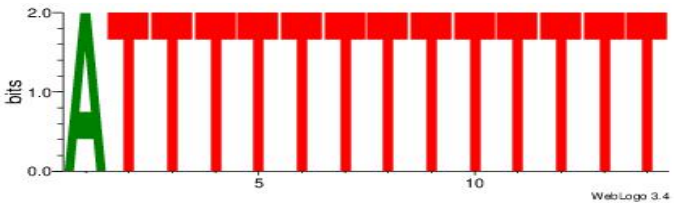
Reverse complement motif Consensus sequence: TTWATGWCTTT

Dataset #: 2
Motif ID: 49
Motif name: Motif 49
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Backward
Position number: 4
Number of overlap: 11
Similarity score: 0.0596591

Alignment:
AAAAAAAAAAAAAT
AAAAGCAGCAA---

Original motif Consensus sequence: AAAAAAAAAAAAAT

Reverse complement motif Consensus sequence: ATTTTTTTTTTTTT

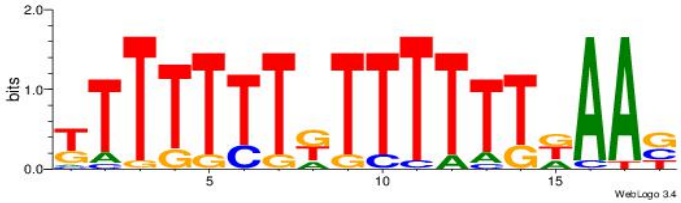


Dataset #:	5
Motif ID:	91
Motif name:	TFM3
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	6
Number of overlap:	11
Similarity score:	0.0610795

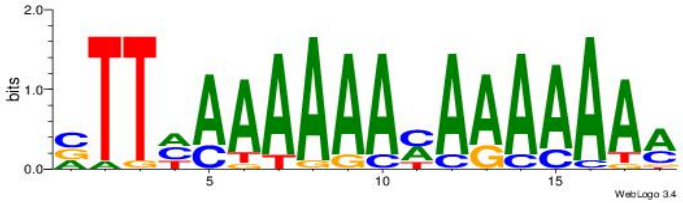
Alignment:

```
KTTTTTTKTTTTTTDAAB
--TTGCTGCTTTT-----
```

Original motif Consensus sequence: KTTTTTTKTTTTTTDAAB



Reverse complement motif Consensus sequence: BTTHAAAAAAYAAAAAAR



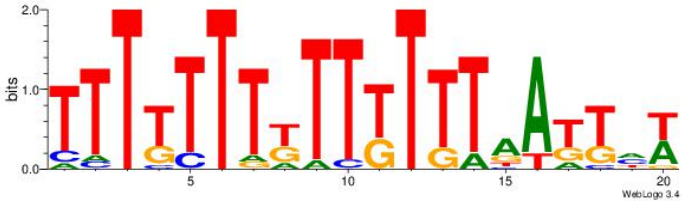
Dataset #:	5

Motif ID:	94
Motif name:	TFM13
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	11
Similarity score:	0.0629058

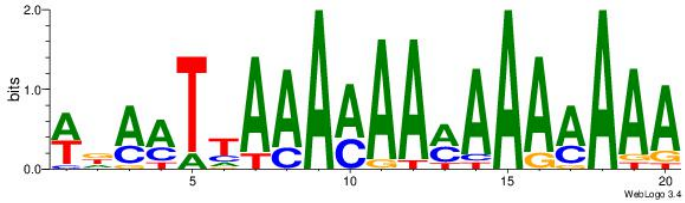
Alignment:

```
TTTTTTTKTTKTTTAATTHW
-TTGCTGCTTTT--------
```

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW



Reverse complement motif Consensus sequence: WHAATTAAARAARAAAAAAA

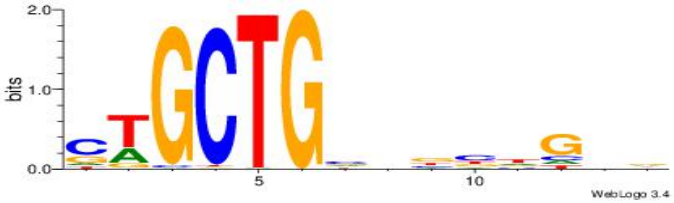


Dataset #:	5
Motif ID:	88
Motif name:	TFF11
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11

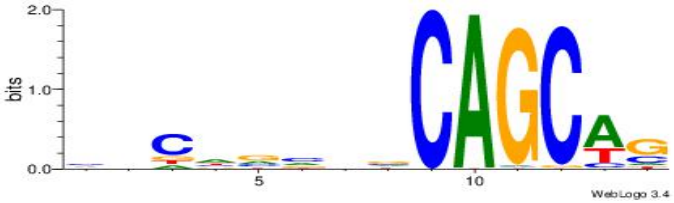
Similarity score: 0.0756642

Alignment:
CTGCTGBDBBDGBD
TTGCTGCTTTT---

Original motif Consensus sequence: CTGCTGBDBBDGBD



Reverse complement motif Consensus sequence: HVCDBBDBCAGCA

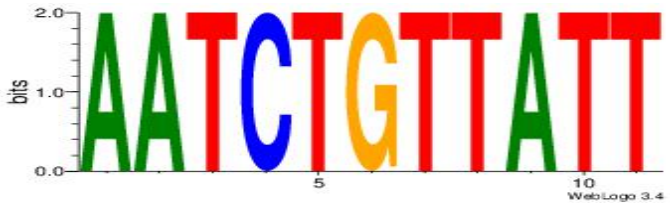


Dataset #: 1
Motif ID: 25
Motif name: Motif 25
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 1
Number of overlap: 11
Similarity score: 0.0823864

Alignment:
AATCTGTTATT
TTGCTGCTTTT

Original motif Consensus sequence: AATAACAGATT

Reverse complement motif Consensus sequence: AATCTGTTATT

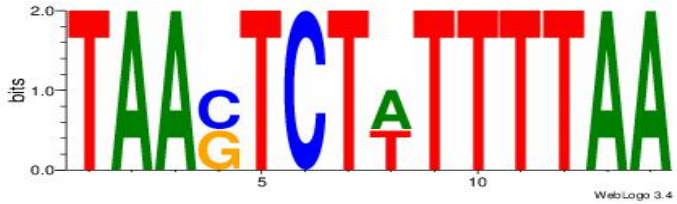


Dataset #:	1
Motif ID:	45
Motif name:	Motif 45
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0823864

Alignment:

```
TTAAAAWAGASTTA
---AAAAGCAGCAA
```

Original motif Consensus sequence: TAASTCTWTTTTAA



Reverse complement motif Consensus sequence: TTAAAAWAGASTT

Dataset #: 1 Motif ID: 31 Motif name: Motif 31

Original motif Consensus sequence: TTGTTGATTTT

Reverse complement motif Consensus sequence: AAAATCAACAA

Best Matches for Motif ID 31 (Highest to Lowest)

Dataset #:	1
Motif ID:	30
Motif name:	Motif 30
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.0454545

Alignment:

```
TTGCTGCTTTT
TTGTTGATTTT
```

Original motif Consensus sequence: TTGCTGCTTTT

Reverse complement motif Consensus sequence: AAAAGCAGCAA

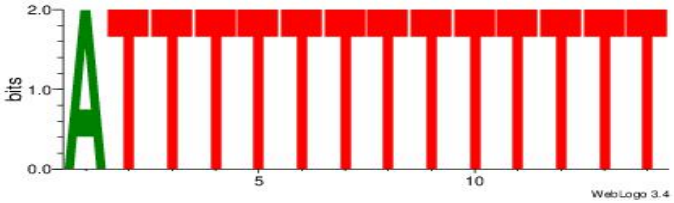
Dataset #:	2
Motif ID:	49
Motif name:	Motif 49
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	11
Similarity score:	0.0681818

Alignment:

```
ATTTTTTTTTTTT
--TTGTTGATTTT-
```

Original motif Consensus sequence: AAAAAAAAAAAAT

Reverse complement motif Consensus sequence: ATTTTTTTTTTTT

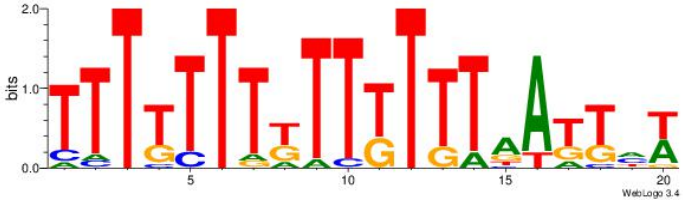


Dataset #:	5
Motif ID:	94
Motif name:	TFM13
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	11

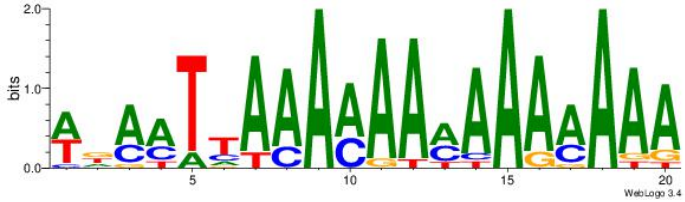
Similarity score: 0.0746753

Alignment:
TTTTTTTKTTKTTTAATTHW
-TTGTTGATTTT--------

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW



Reverse complement motif Consensus sequence: WHAATTAAARAARAAAAAAA

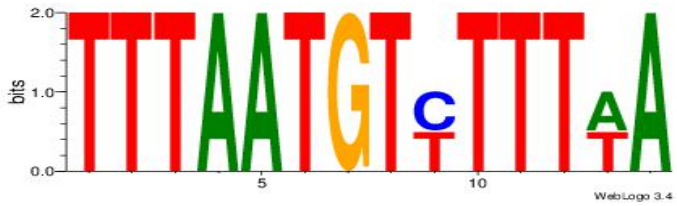


Dataset #: 1
Motif ID: 33
Motif name: Motif 33
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 2
Number of overlap: 11
Similarity score: 0.0795455

Alignment:
TTTAATGTYTTTWA
-TTGTTGATTTT--

Original motif Consensus sequence: TTTAATGTYTTTWA

Reverse complement motif Consensus sequence: TWAAAKACATTAA



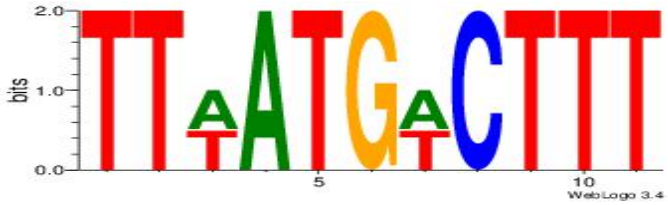
Dataset #:	1
Motif ID:	24
Motif name:	Motif 24
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0795455

Alignment:

```
TTWATGWCTTT
TTGTTGATTTT
```

Original motif Consensus sequence: AAAGWCATWAA

Reverse complement motif Consensus sequence: TTWATGWCTTT



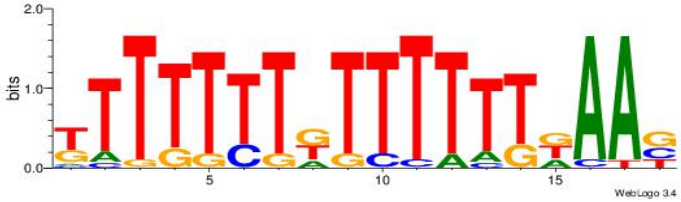
Dataset #:	5
Motif ID:	91

Motif name:	TFM3
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	11
Similarity score:	0.0809659

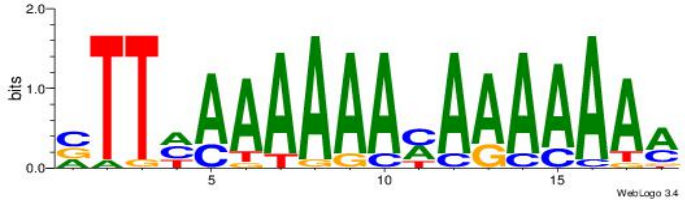
Alignment:

```
KTTTTTTKTTTTTTDAAB
--TTGTTGATTTT-----
```

Original motif Consensus sequence: KTTTTTTKTTTTTTDAAB



Reverse complement motif Consensus sequence: BTTHAAAAAAYAAAAAAR

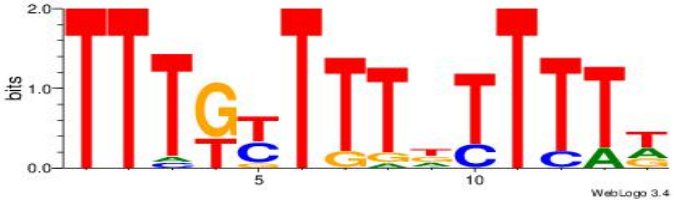


Dataset #:	1
Motif ID:	4
Motif name:	Motif 4
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	11
Similarity score:	0.0852273

Alignment:
TTTRKTTTHTTTTH
--TTGTTGATTTT-

Original motif Consensus sequence: HAAAAHAAARMAAA

Reverse complement motif Consensus sequence: TTTRKTTTHTTTTH

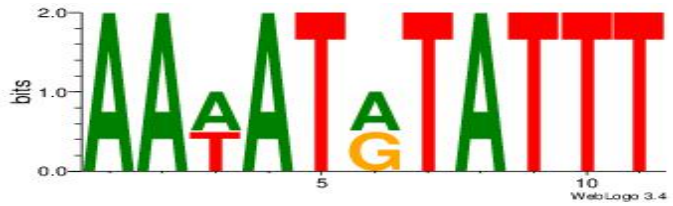


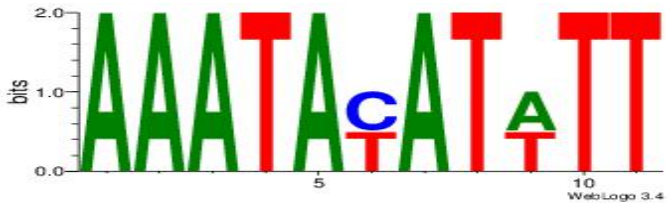
Dataset #:	1
Motif ID:	13
Motif name:	Motif 13
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.113636

Alignment:
AAWATRTATTT
AAAATCAACAA

Original motif Consensus sequence: AAWATRTATTT

Reverse complement motif Consensus sequence: AAATAKATWTT



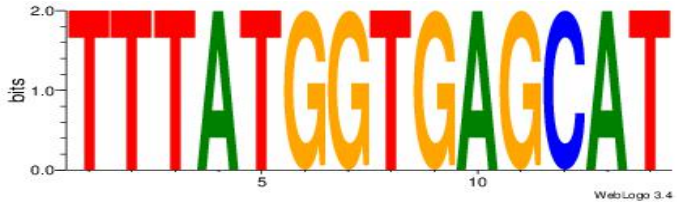


Dataset #:	1
Motif ID:	22
Motif name:	Motif 22
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.113636

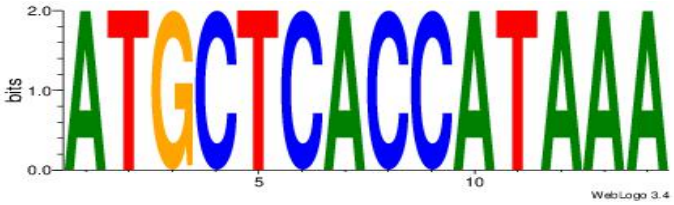
Alignment:

```
ATGCTCACCATAAA
AAAATCAACAA---
```

Original motif Consensus sequence: TTTATGGTGAGCAT



Reverse complement motif Consensus sequence: ATGCTCACCATAA



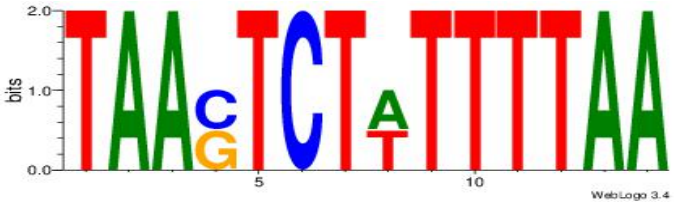
Dataset #:	1
Motif ID:	45

Motif name:	Motif 45
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	11
Similarity score:	0.113636

Alignment:

```
TAASTCTWTTTTAA
-TTGTTGATTTT--
```

Original motif Consensus sequence: TAASTCTWTTTTAA



Reverse complement motif Consensus sequence: TTAAAAWAGASTT

Dataset #: 1 Motif ID: 32 Motif name: Motif 32

Original motif Consensus sequence: TTACWGTTT

Reverse complement motif Consensus sequence: AAACWGTAA

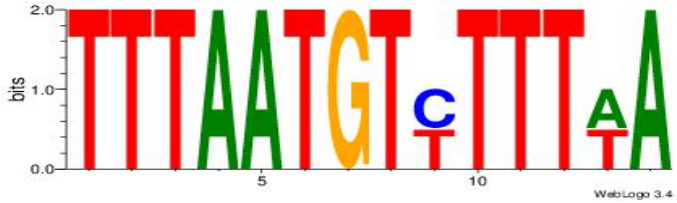
Best Matches for Motif ID 32 (Highest to Lowest)

Dataset #:	1
Motif ID:	33
Motif name:	Motif 33
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	5
Number of overlap:	9
Similarity score:	0.0347222

Alignment:

```
TTTAATGTYTTTWA
-TTACWGTTT----
```

Original motif Consensus sequence: TTTAATGTYTTTWA



Reverse complement motif Consensus sequence: TWAAAKACATTAA

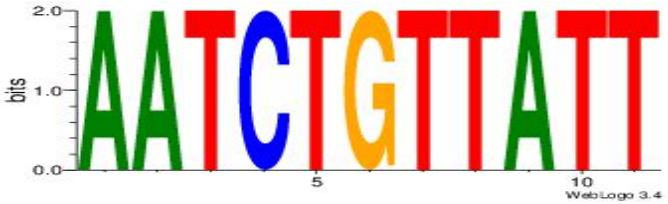
Dataset #:	1
Motif ID:	25
Motif name:	Motif 25
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	9

Similarity score: 0.0486111

Alignment:
AATAACAGATT
--TTACWGTTT

Original motif Consensus sequence: AATAACAGATT

Reverse complement motif Consensus sequence: AATCTGTTATT



Dataset #:	1
Motif ID:	30
Motif name:	Motif 30
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	9
Similarity score:	0.0486111

Alignment:
TTGCTGCTTTT
TTACWGTTT--

Original motif Consensus sequence: TTGCTGCTTTT

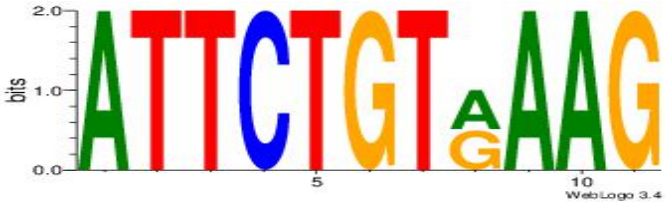
Reverse complement motif Consensus sequence: AAAAGCAGCAA

Dataset #:	1
Motif ID:	27
Motif name:	Motif 27
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	9
Similarity score:	0.0625

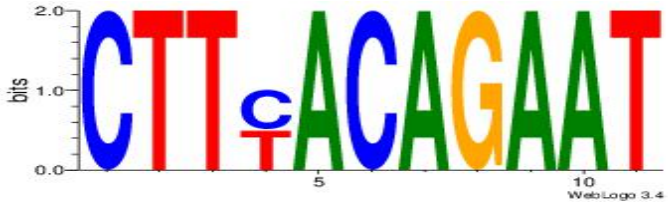
Alignment:

```
CTTKACAGAAT
TTACWGTTT--
```

Original motif Consensus sequence: ATTCTGTRAAG



Reverse complement motif Consensus sequence: CTTKACAGAAT



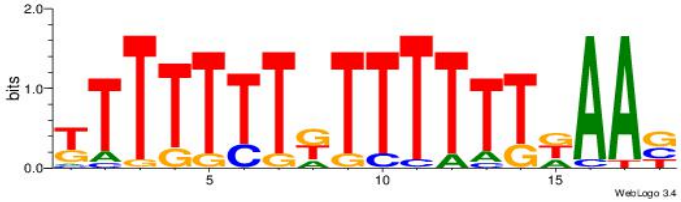
Dataset #:	5
Motif ID:	91

Motif name:	TFM3
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	9
Similarity score:	0.0729167

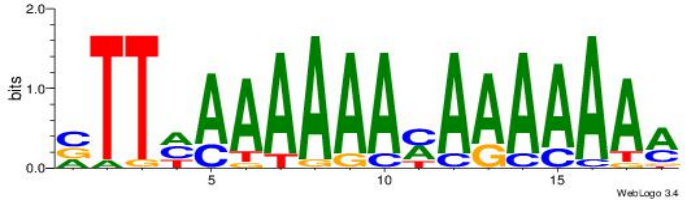
Alignment:

```
KTTTTTTKTTTTTTDAAB
--TTACWGTTT-------
```

Original motif Consensus sequence: KTTTTTTKTTTTTTDAAB



Reverse complement motif Consensus sequence: BTTHAAAAAAYAAAAAAR



Dataset #:	1
Motif ID:	7
Motif name:	Motif 7
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	9
Similarity score:	0.0763889

Alignment:
AATAGYATTTT
-TTACWGTTT-

Original motif Consensus sequence: AAAATKCTATT

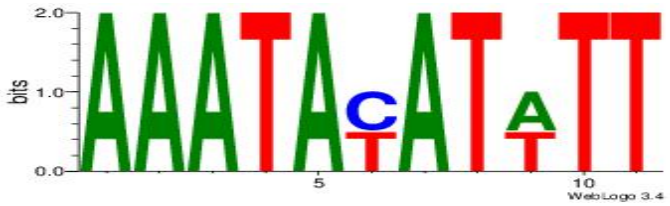
Reverse complement motif Consensus sequence: AATAGYATTTT

Dataset #:	1
Motif ID:	13
Motif name:	Motif 13
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	9
Similarity score:	0.0763889

Alignment:
AAATAKATWTT
TTACWGTTT--

Original motif Consensus sequence: AAWATRTATTT

Reverse complement motif Consensus sequence: AAATAKATWTT



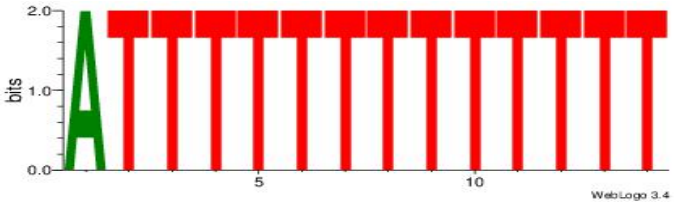
Dataset #:	2
Motif ID:	49
Motif name:	Motif 49
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	9
Similarity score:	0.0763889

Alignment:

```
AAAAAAAAAAAAAT
AAACWGTAA-----
```

Original motif Consensus sequence: AAAAAAAAAAAAAT

Reverse complement motif Consensus sequence: ATTTTTTTTTTTTT



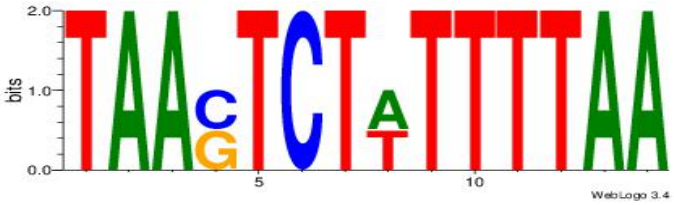
Dataset #:	1
Motif ID:	45

Motif name:	Motif 45
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	9
Similarity score:	0.0763889

Alignment:

```
TTAAAAWAGASTTA
-----AAACWGTAA
```

Original motif Consensus sequence: TAASTCTWTTTTAA



Reverse complement motif Consensus sequence: TTAAAAWAGASTT

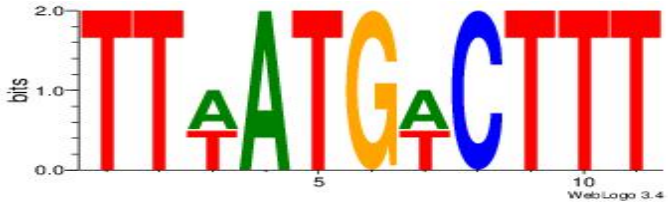
Dataset #:	1
Motif ID:	24
Motif name:	Motif 24
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	9
Similarity score:	0.0763889

Alignment:

```
TTWATGWCTTT
--TTACWGTTT
```

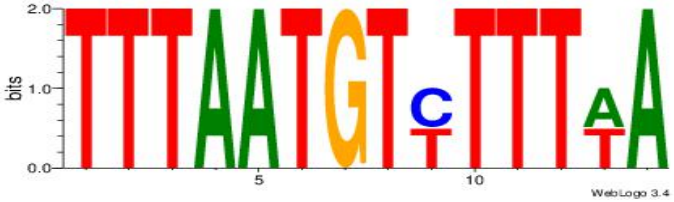
Original motif Consensus sequence: AAAGWCATWAA

Reverse complement motif Consensus sequence: TTWATGWCTTT



Dataset #: 1 Motif ID: 33 Motif name: Motif 33

Original motif Consensus sequence: TTTAATGTYTTTWA



Reverse complement motif Consensus sequence: TWAAAKACATTAAA

Best Matches for Motif ID 33 (Highest to Lowest)

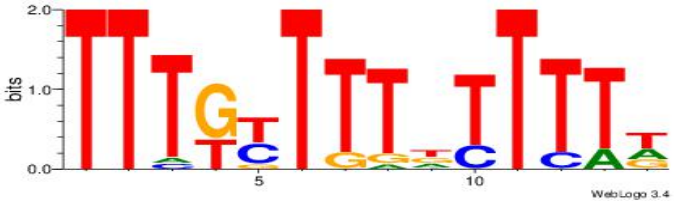
Dataset #:	1
Motif ID:	4
Motif name:	Motif 4
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1

Number of overlap: 14
Similarity score: 0.0821429

Alignment:
HAAAAHAAARMAAA
TWAAAKACATTAAA

Original motif Consensus sequence: HAAAAHAAARMAAA

Reverse complement motif Consensus sequence: TTTRKTTTHTTTTH

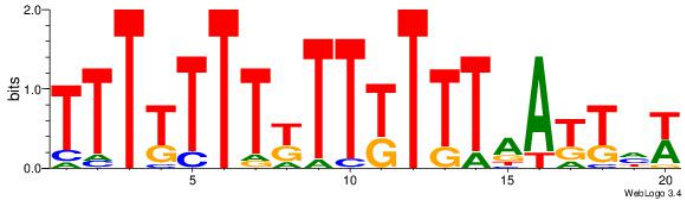


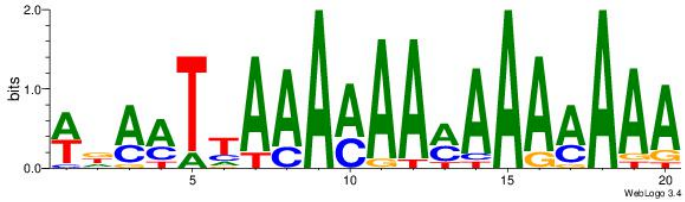
Dataset #: 5
Motif ID: 94
Motif name: TFM13
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 2
Number of overlap: 14
Similarity score: 0.0918367

Alignment:
TTTTTTTKTTKTTTAATTHW
-TTTAATGTYTTTWA-----

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW

Reverse complement motif Consensus sequence:
WHAATTAAARAARAAAAAAA

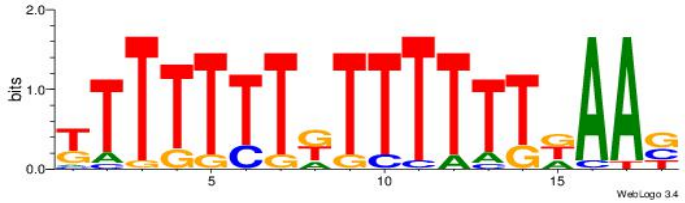




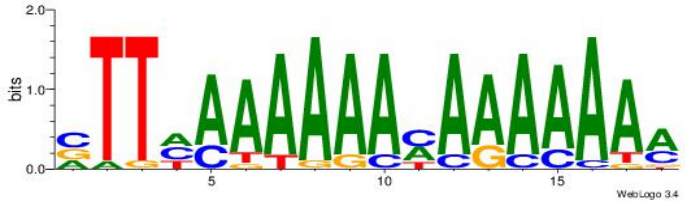
Dataset #: 5
Motif ID: 91
Motif name: TFM3
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 4
Number of overlap: 14
Similarity score: 0.09375

Alignment:
KTTTTTTKTTTTTTDAAB
-TTTAATGTYTTTWA---

Original motif Consensus sequence: KTTTTTTKTTTTTTDAAB



Reverse complement motif Consensus sequence: BTTHAAAAAAYAAAAAAR



Dataset #: 2

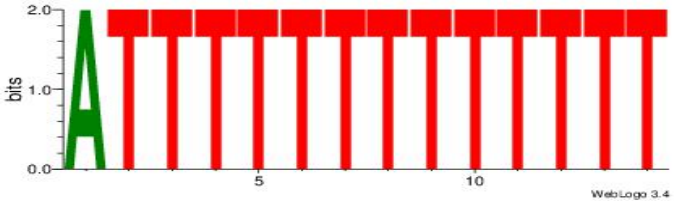
Motif ID:	49
Motif name:	Motif 49
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	14
Similarity score:	0.107143

Alignment:

```
ATTTTTTTTTTTTT
TTTAATGTYTTTWA
```

Original motif Consensus sequence: AAAAAAAAAAAAAT

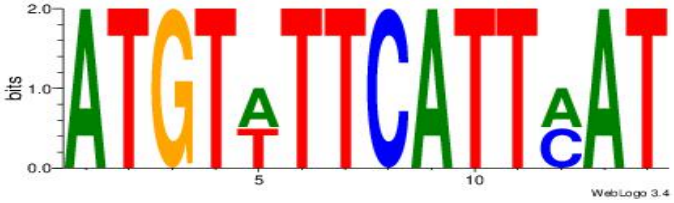
Reverse complement motif Consensus sequence: ATTTTTTTTTTTTT



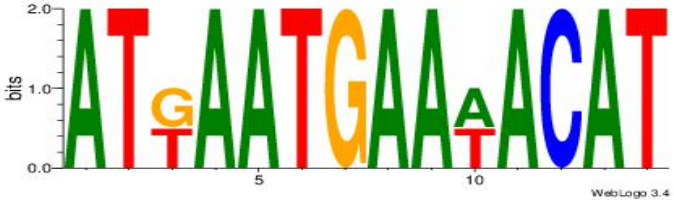
Dataset #:	1
Motif ID:	23
Motif name:	Motif 23
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	14
Similarity score:	0.125

Alignment:
ATYAATGAAWACAT
TTTAATGTYTTTWA

Original motif Consensus sequence: ATGTWTTCATTMAT



Reverse complement motif Consensus sequence: ATYAATGAAWACA

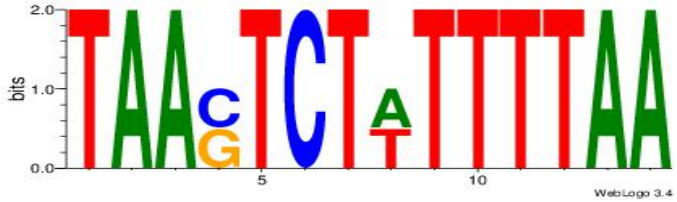


Dataset #:	1
Motif ID:	45
Motif name:	Motif 45
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	13
Similarity score:	0.576923

Alignment:
-TAASTCTWTTTTAA
TTTAATGTYTTTWA-

Original motif Consensus sequence: TAASTCTWTTTTAA

Reverse complement motif Consensus sequence: TTAAAAWAGASTT

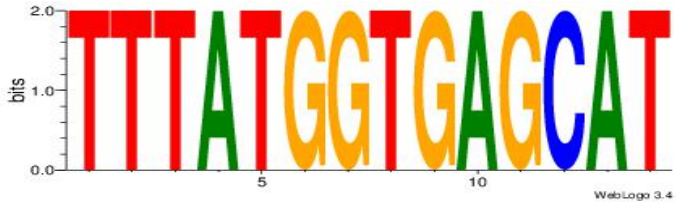


Dataset #:	1
Motif ID:	22
Motif name:	Motif 22
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	13
Similarity score:	0.625

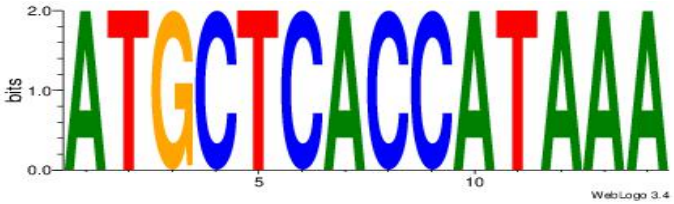
Alignment:

```
-TTTATGGTGAGCAT
TTTAATGTYTTTWA-
```

Original motif Consensus sequence: TTTATGGTGAGCAT



Reverse complement motif Consensus sequence: ATGCTCACCATAA



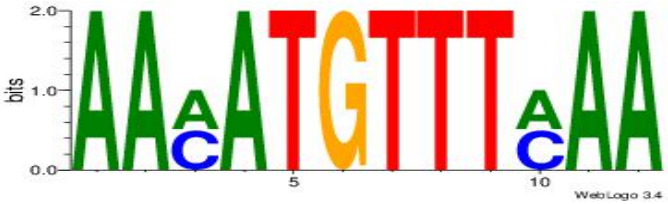
Dataset #:	1
Motif ID:	11

Motif name:	Motif 11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	12
Similarity score:	1.09375

Alignment:

```
AAMATGTTTMAA--
TWAAAKACATTAAA
```

Original motif Consensus sequence: AAMATGTTTMAA

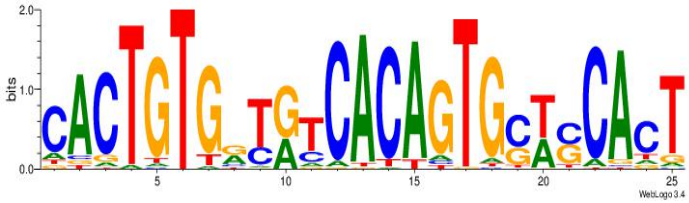


Reverse complement motif Consensus sequence: TTYAAACATYTT

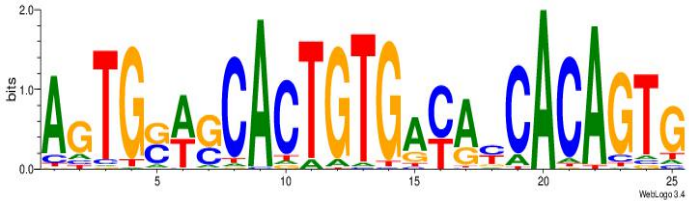
Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	14
Number of overlap:	12
Similarity score:	1.12483

Alignment:
AGTGSWSCACTGTGAMAMCACAGTG--
----------TWAAAKACATTAAA

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG

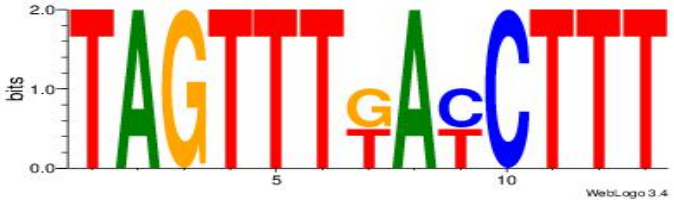


Dataset #:	1
Motif ID:	15
Motif name:	Motif 15
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	12
Similarity score:	1.125

Alignment:
--AAAGRTMAAACTA
TWAAAKACATTAAA-

Original motif Consensus sequence: AAAGRTMAAACTA

Reverse complement motif Consensus sequence: TAGTTTYAKCTTT



Dataset #: 1 **Motif ID: 34** **Motif name: Motif 34**

Original motif Consensus sequence: AAAGATGA

Reverse complement motif Consensus sequence: TCATCTTT

Best Matches for Motif ID 34 (Highest to Lowest)

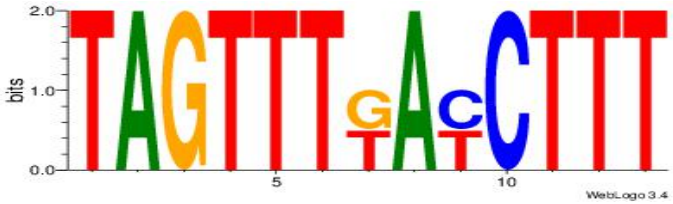
Dataset #:	1
Motif ID:	15
Motif name:	Motif 15
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	6
Number of overlap:	8
Similarity score:	0.03125

Alignment:

```
TAGTTTYAKCTTT
-----TCATCTTT
```

Original motif Consensus sequence: AAAGRTMAAACTA

Reverse complement motif Consensus sequence: TAGTTTYAKCTTT



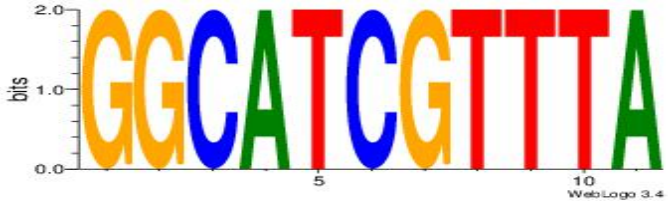
Dataset #:	4
Motif ID:	80
Motif name:	taaacgatgcc
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	8
Similarity score:	0.0625

Alignment:

```
TAAACGATGCC
--AAAGATGA-
```

Original motif Consensus sequence: TAAACGATGCC

Reverse complement motif Consensus sequence: GGCATCGTTTA

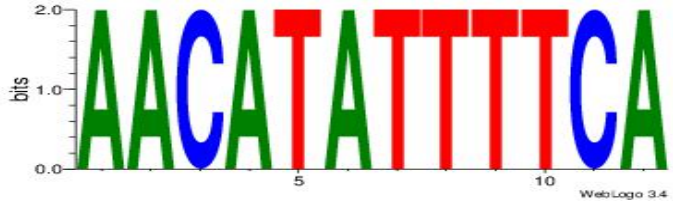


Dataset #:	1
Motif ID:	9
Motif name:	Motif 9
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	8
Similarity score:	0.0625

Alignment:

```
TGAAAATATGTT
-AAAGATGA---
```

Original motif Consensus sequence: AACATATTTTCA



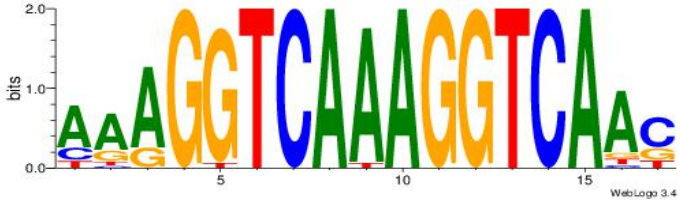
Reverse complement motif Consensus sequence: TGAAAATATGTT

Dataset #:	3
Motif ID:	60
Motif name:	NR1H2RXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	8

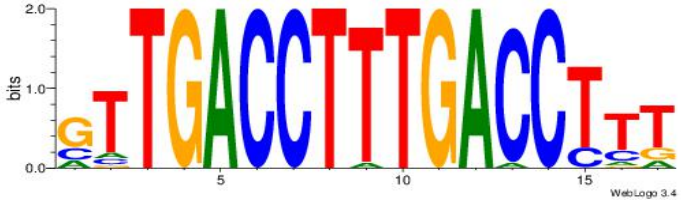
Similarity score: 0.06375

Alignment:
AAAGGTCAAAGGTCAAC
-------AAAGATGA--

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC



Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT



Dataset #: 3
Motif ID: 52
Motif name: NR2F1
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 7
Number of overlap: 8
Similarity score: 0.0697115

Alignment:
AKGYYCAAAGRTCA
------AAAGATGA

Original motif Consensus sequence: TGAMCTTTGMMCYT

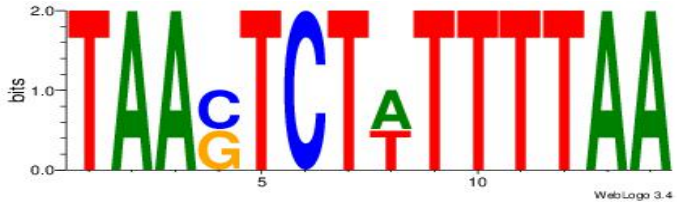
Reverse complement motif Consensus sequence: AKGYYCAAAGRTCA

Dataset #:	1
Motif ID:	45
Motif name:	Motif 45
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	8
Similarity score:	0.078125

Alignment:

```
TAASTCTWTTTTAA
----TCATCTTT--
```

Original motif Consensus sequence: TAASTCTWTTTTAA



Reverse complement motif Consensus sequence: TTAAAAWAGASTT

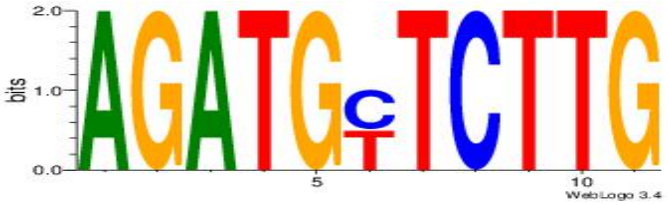
Dataset #:	1
Motif ID:	35

Motif name:	Motif 35
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	8
Similarity score:	0.078125

Alignment:

```
CAAGAKCATCT
AAAGATGA---
```

Original motif Consensus sequence: AGATGYTCTTG

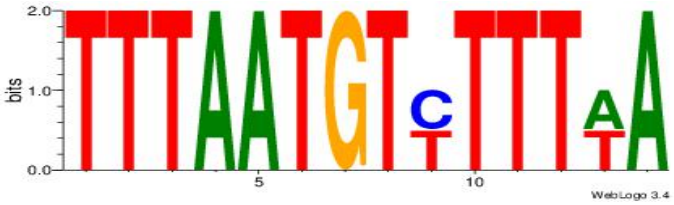


Reverse complement motif Consensus sequence: CAAGAKCATCT

Dataset #:	1
Motif ID:	33
Motif name:	Motif 33
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	5
Number of overlap:	8
Similarity score:	0.078125

Alignment:
TWAAAKACATTAAA
--AAAGATGA----

Original motif Consensus sequence: TTTAATGTYTTTWA



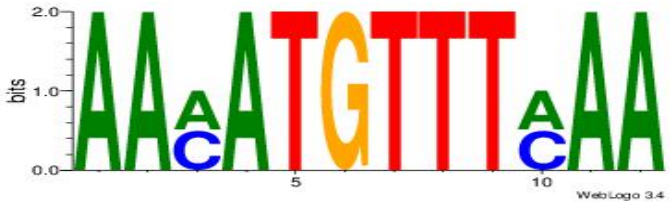
Reverse complement motif Consensus sequence: TWAAAKACATTAA

Dataset #:	1
Motif ID:	11
Motif name:	Motif 11
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	8
Similarity score:	0.078125

Alignment:
TTYAAACATYTT
-AAAGATGA---

Original motif Consensus sequence: AAMATGTTTMAA

Reverse complement motif Consensus sequence: TTYAAACATYTT



Dataset #:	1
Motif ID:	10
Motif name:	Motif 10
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	8
Similarity score:	0.078125

Alignment:

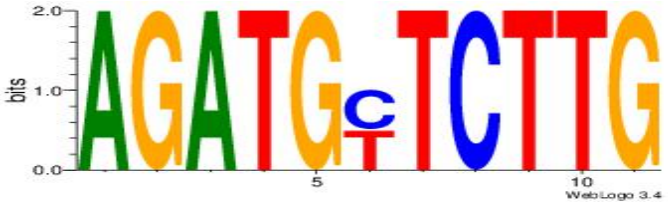
```
AAACAATYTTT
---TCATCTTT
```

Original motif Consensus sequence: AAAMATTGTTT

Reverse complement motif Consensus sequence: AAACAATYTTT

Dataset #: 1 Motif ID: 35 Motif name: Motif 35

Original motif Consensus sequence: AGATGYTCTTG



Reverse complement motif Consensus sequence: CAAGAKCATCT

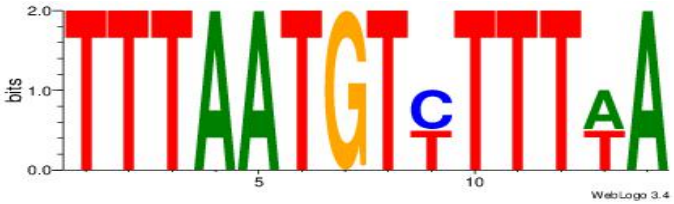
Best Matches for Motif ID 35 (Highest to Lowest)

Dataset #:	1
Motif ID:	33
Motif name:	Motif 33
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	11
Similarity score:	0.092803

Alignment:

```
TTTAATGTYTTTWA
--AGATGYTCTTG-
```

Original motif Consensus sequence: TTTAATGTYTTTWA



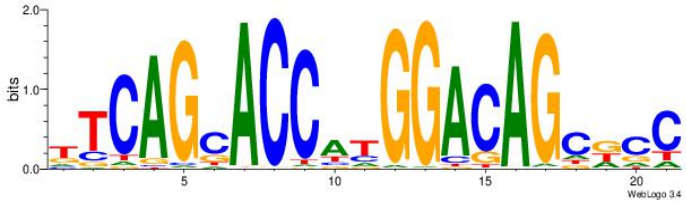
Reverse complement motif Consensus sequence: TWAAAKACATTAA

Dataset #:	3
Motif ID:	57
Motif name:	REST
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	9
Number of overlap:	11
Similarity score:	0.0964903

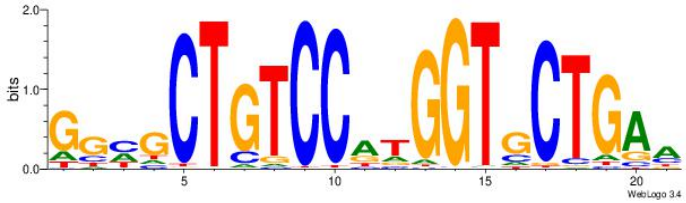
Alignment:

```
GGYGCTGTCCATGGTGCTGAA
--AGATGYTCTTG--------
```

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA

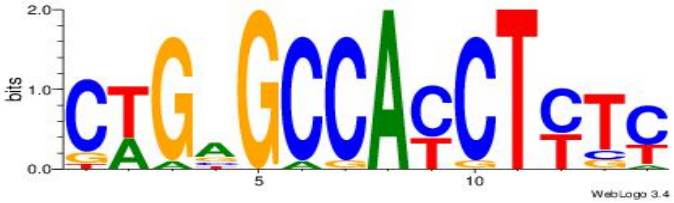


Dataset #:	1
Motif ID:	5
Motif name:	Motif 5
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4

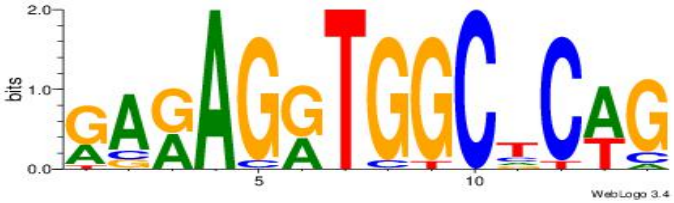
Number of overlap: 11
Similarity score: 0.0999053

Alignment:
GAKAGKTGGCTCWG
AGATGYTCTTG---

Original motif Consensus sequence: CWGAGCCAYCTYTC



Reverse complement motif Consensus sequence: GAKAGKTGGCTCW

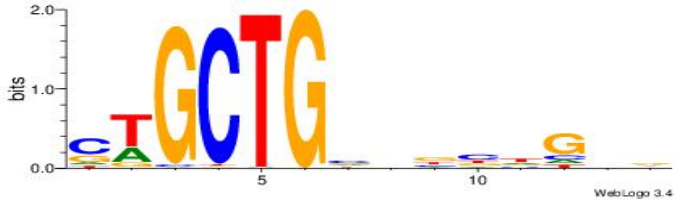


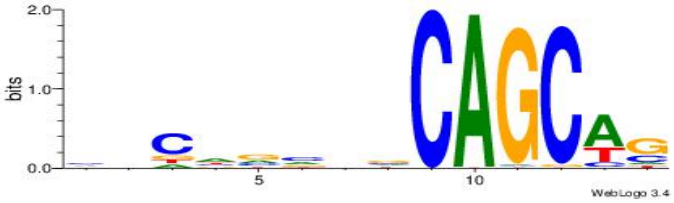
Dataset #: 5
Motif ID: 88
Motif name: TFF11
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 2
Number of overlap: 11
Similarity score: 0.101926

Alignment:
CTGCTGBDBBDGBD
-AGATGYTCTTG--

Original motif Consensus sequence: CTGCTGBDBBDGBD

Reverse complement motif Consensus sequence: HVCDBBDBCAGCA





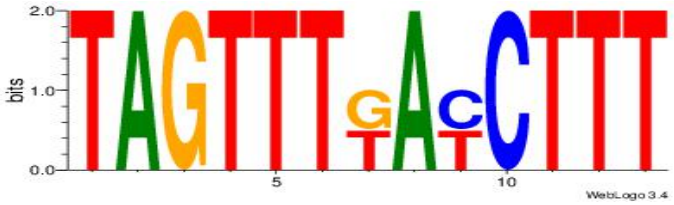
Dataset #:	1
Motif ID:	15
Motif name:	Motif 15
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.104167

Alignment:

```
TAGTTTYAKCTTT
AGATGYTCTTG--
```

Original motif Consensus sequence: AAAGRTMAAACTA

Reverse complement motif Consensus sequence: TAGTTTYAKCTTT



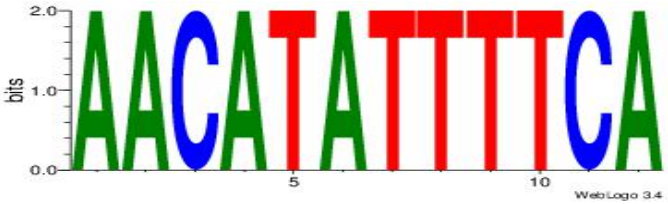
Dataset #:	1
Motif ID:	9

Motif name:	Motif 9
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.104167

Alignment:

```
AACATATTTTCA
-AGATGYTCTTG
```

Original motif Consensus sequence: AACATATTTTCA

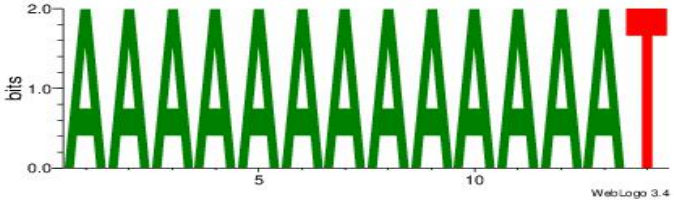


Reverse complement motif Consensus sequence: TGAAAATATGTT

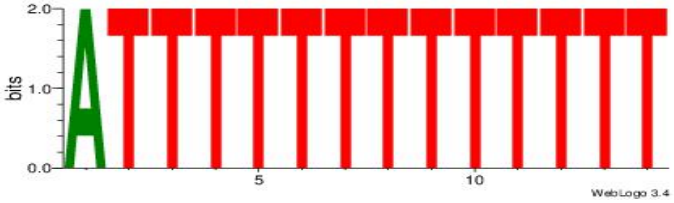
Dataset #:	2
Motif ID:	49
Motif name:	Motif 49
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	11
Similarity score:	0.104167

Alignment:
ATTTTTTTTTTTTT
AGATGYTCTTG---

Original motif Consensus sequence: AAAAAAAAAAAAAT



Reverse complement motif Consensus sequence: ATTTTTTTTTTTTT

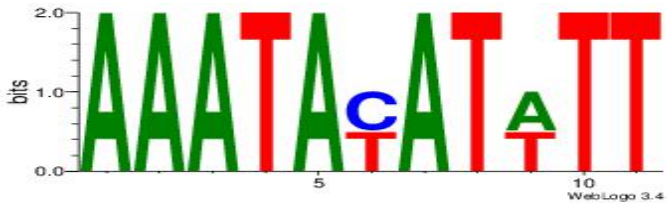


Dataset #:	1
Motif ID:	13
Motif name:	Motif 13
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.104167

Alignment:
AAATAKATWTT
CAAGAKCATCT

Original motif Consensus sequence: AAWATRTATTT

Reverse complement motif Consensus sequence: AAATAKATWTT

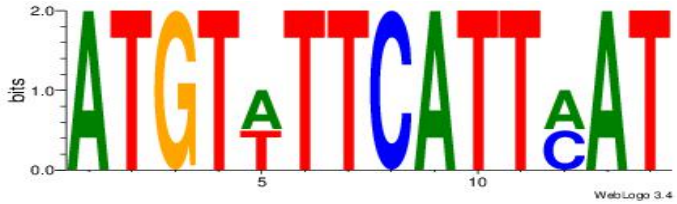


Dataset #:	1
Motif ID:	23
Motif name:	Motif 23
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	4
Number of overlap:	11
Similarity score:	0.104167

Alignment:

```
ATGTWTTCATTMAT
AGATGYTCTTG---
```

Original motif Consensus sequence: ATGTWTTCATTMAT



Reverse complement motif Consensus sequence: ATYAATGAAWACA

Dataset #:	1
Motif ID:	12

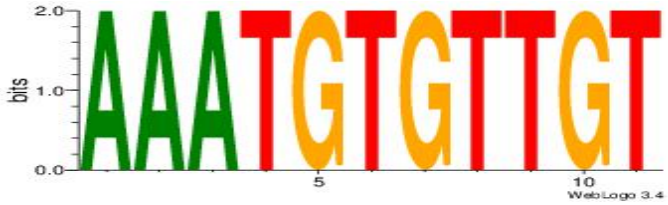
Motif name:	Motif 12
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.104167

Alignment:

```
ACAACACATTT
CAAGAKCATCT
```

Original motif Consensus sequence: ACAACACATTT

Reverse complement motif Consensus sequence: AAATGTGTTGT



Dataset #: 1 Motif ID: 36 Motif name: Motif 36

Original motif Consensus sequence: TGGTGTCA

Reverse complement motif Consensus sequence: TGACACCA

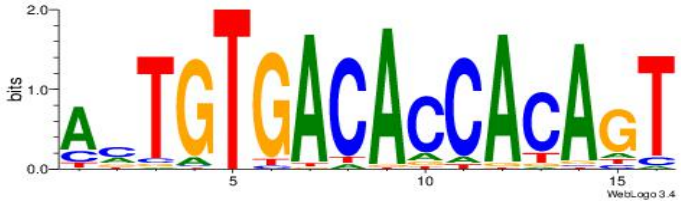
Best Matches for Motif ID 36 (Highest to Lowest)

Dataset #:	4
Motif ID:	71
Motif name:	AmTGTGACACCACAGT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	5
Number of overlap:	8
Similarity score:	0.0205078

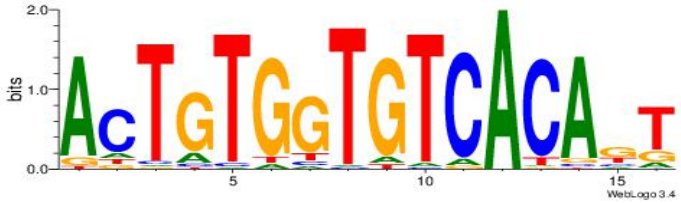
Alignment:

```
ACTGTGGTGTCACART
----TGGTGTCA----
```

Original motif Consensus sequence: AMTGTGACACCACAGT



Reverse complement motif Consensus sequence: ACTGTGGTGTCACART

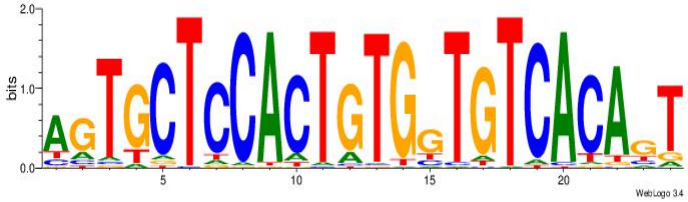


Dataset #:	4
Motif ID:	77
Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	13

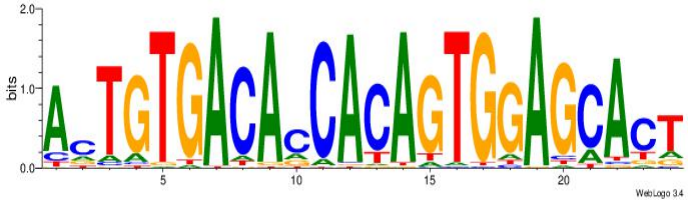
Number of overlap: 8
Similarity score: 0.0246479

Alignment:
ACTGTGACACCACAGTGGAGCACT
----TGACACCA----------

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



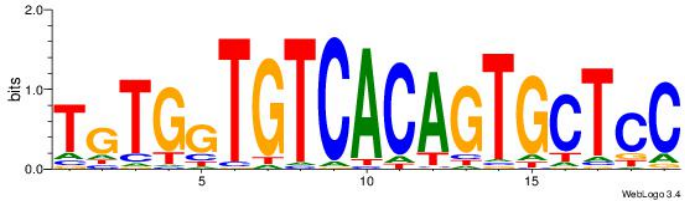
Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT



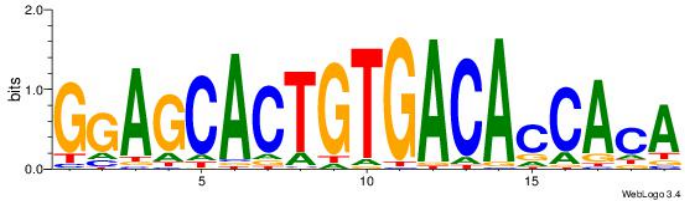
Dataset #: 4
Motif ID: 67
Motif name: TgTGgTGTCACAGTGCTCC
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 3
Number of overlap: 8
Similarity score: 0.0338542

Alignment:
TGTGGTGTCACAGTGCTCC
--TGGTGTCA---------

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA

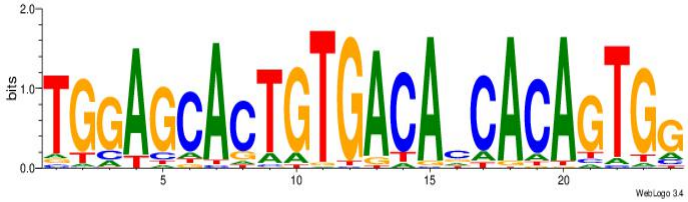


Dataset #:	4
Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	7
Number of overlap:	8
Similarity score:	0.035473

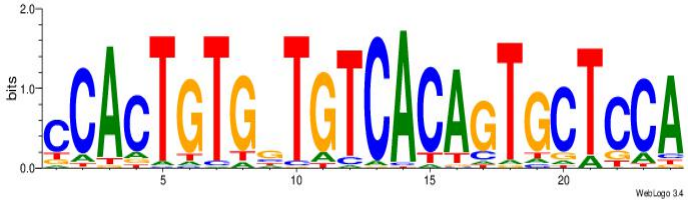
Alignment:

```
CCACTGTGVTGTCACAGTGCTCCA
------TGGTGTCA----------
```

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

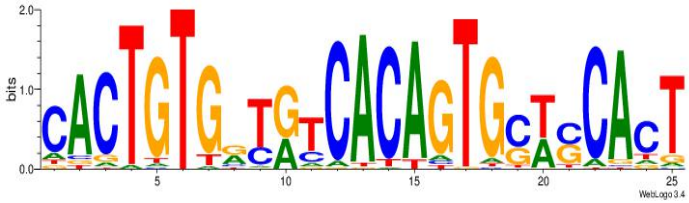


Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	13
Number of overlap:	8
Similarity score:	0.0575397

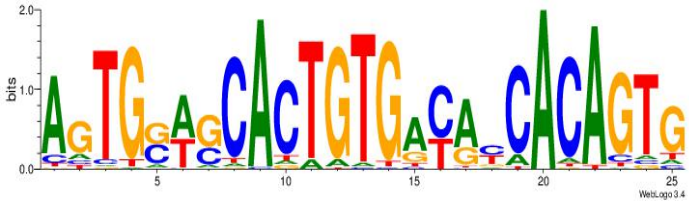
Alignment:

```
AGTGSWSCACTGTGAMAMCACAGTG
------------TGACACCA-----
```

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG

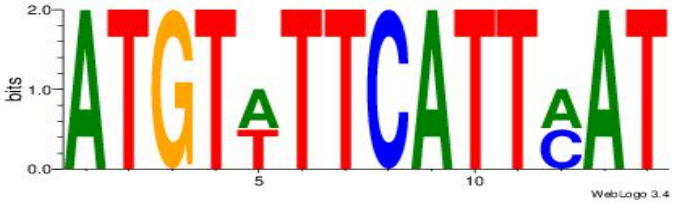


Dataset #:	1
Motif ID:	23
Motif name:	Motif 23
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	6

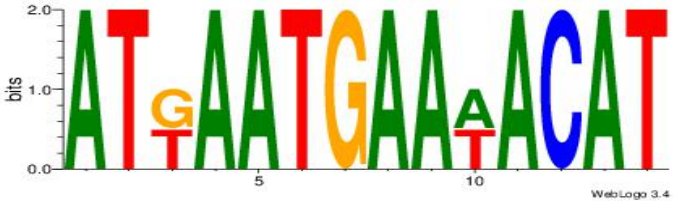
Number of overlap: 8
Similarity score: 0.078125

Alignment:
ATGTWTTCATTMAT
-TGGTGTCA-----

Original motif Consensus sequence: ATGTWTTCATTMAT



Reverse complement motif Consensus sequence: ATYAATGAAWACA

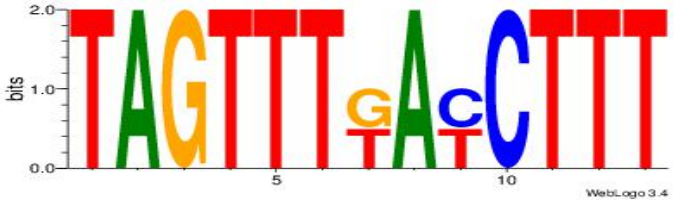


Dataset #: 1
Motif ID: 15
Motif name: Motif 15
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 1
Number of overlap: 8
Similarity score: 0.078125

Alignment:
AAAGRTMAAACTA
TGACACCA-----

Original motif Consensus sequence: AAAGRTMAAACTA

Reverse complement motif Consensus sequence: TAGTTTYAKCTTT

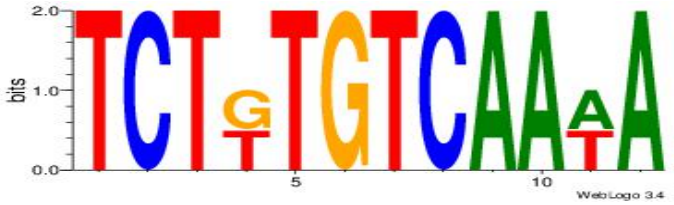


Dataset #:	1
Motif ID:	16
Motif name:	Motif 16
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	8
Similarity score:	0.078125

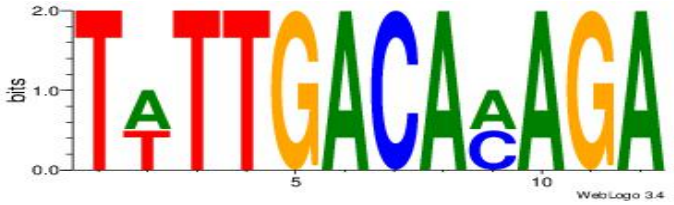
Alignment:

```
TCTKTGTCAAWA
-TGGTGTCA---
```

Original motif Consensus sequence: TCTKTGTCAAWA



Reverse complement motif Consensus sequence: TWTTGACAYAGA



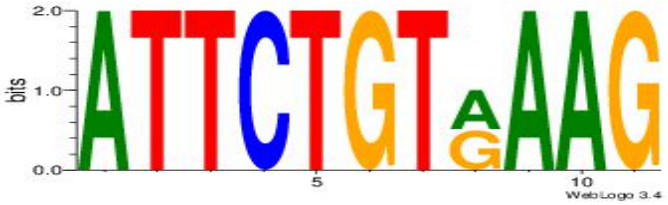
Dataset #:	1
Motif ID:	27

Motif name:	Motif 27
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	8
Similarity score:	0.078125

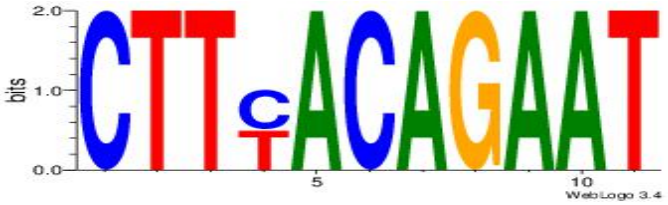
Alignment:

```
CTTKACAGAAT
--TGACACCA-
```

Original motif Consensus sequence: ATTCTGTRAAG



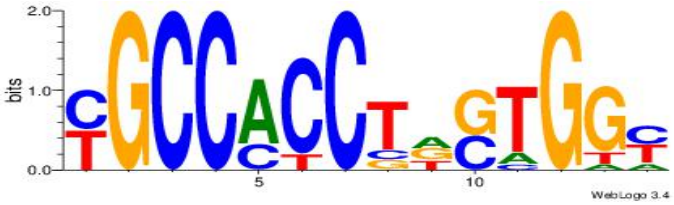
Reverse complement motif Consensus sequence: CTTKACAGAAT



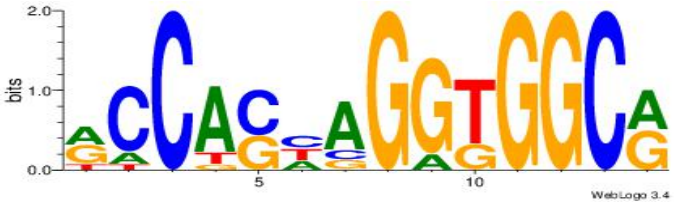
Dataset #:	2
Motif ID:	47
Motif name:	Motif 47
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	8
Similarity score:	0.0915178

Alignment:
YGCCACCTDSTGGY
TGACACCA------

Original motif Consensus sequence: YGCCACCTDSTGGY



Reverse complement motif Consensus sequence: KCCASDAGGTGGC



Dataset #: 1 Motif ID: 37 Motif name: Motif 37

Original motif Consensus sequence: ACTTTGG

Reverse complement motif Consensus sequence: CCAAAGT

Best Matches for Motif ID 37 (Highest to Lowest)

Dataset #:	4
Motif ID:	69
Motif name:	atactttggc
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2

Number of overlap: 7
Similarity score: 0

Alignment:
GCCAAAGTAT
-CCAAAGT--

Original motif Consensus sequence: ATACTTTGGC

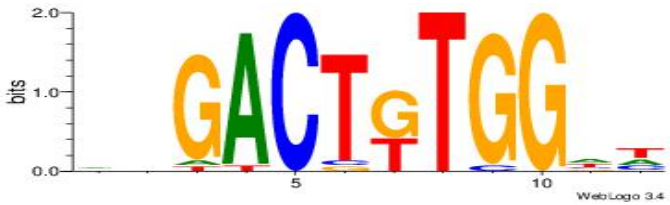
Reverse complement motif Consensus sequence: GCCAAAGTAT

Dataset #: 4
Motif ID: 75
Motif name: wwCCAmAGTCmt
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Backward
Position number: 4
Number of overlap: 7
Similarity score: 0.0275974

Alignment:
DDCCAMAGTCHB
--CCAAAGT---

Original motif Consensus sequence: DDCCAMAGTCHB

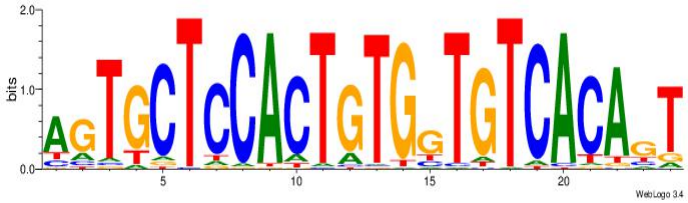
Reverse complement motif Consensus sequence: VDGACTRTGGDD



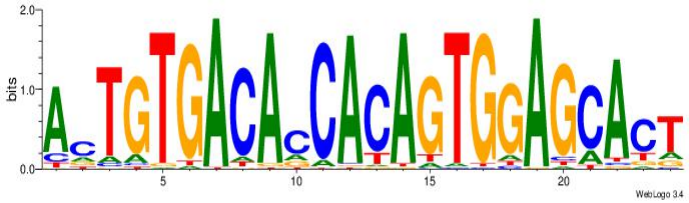
Dataset #: 4
Motif ID: 77
Motif name: AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 10
Number of overlap: 7
Similarity score: 0.056841

Alignment:
ACTGTGACACCACAGTGGAGCACT
---------CCAAAGT--------

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT



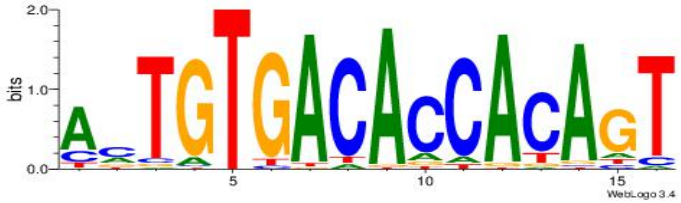
Dataset #: 4

Motif ID:	71
Motif name:	AmTGTGACACCACAGT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	10
Number of overlap:	7
Similarity score:	0.0597098

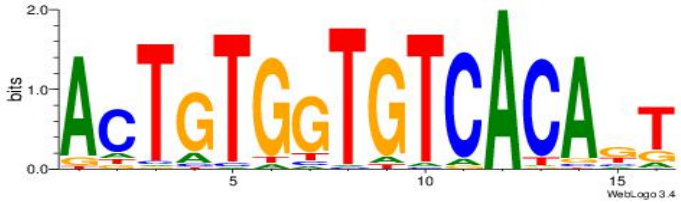
Alignment:

```
ACTGTGGTGTCACART
ACTTTGG---------
```

Original motif Consensus sequence: AMTGTGACACCACAGT



Reverse complement motif Consensus sequence: ACTGTGGTGTCACART

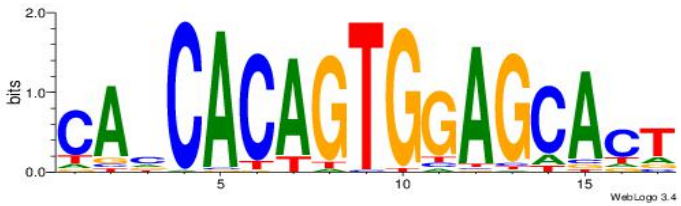


Dataset #:	4
Motif ID:	76
Motif name:	CAcCACAGTGGAGCAct
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	9
Number of overlap:	7

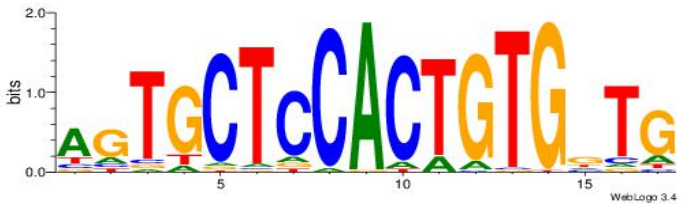
Similarity score: 0.061942

Alignment:
AGTGCTCCACTGTGDTG
--------ACTTTGG--

Original motif Consensus sequence: CAHCACAGTGGAGCACT



Reverse complement motif Consensus sequence: AGTGCTCCACTGTGDTG

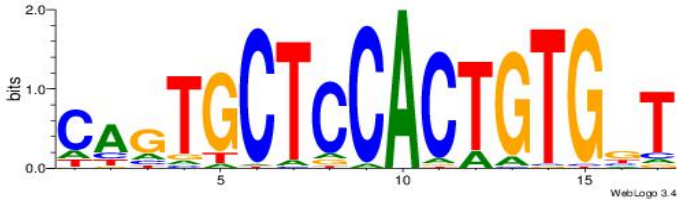


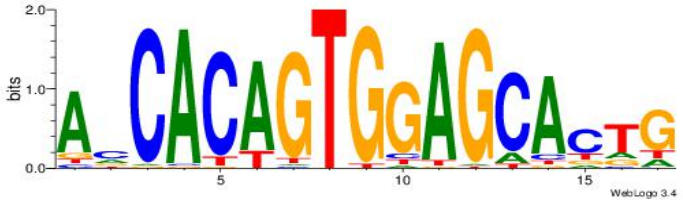
Dataset #: 4
Motif ID: 70
Motif name: CagTGCTCCACTGTGgT
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 2
Number of overlap: 7
Similarity score: 0.0625

Alignment:
ABCACAGTGGAGCACTG
-CCAAAGT---------

Original motif Consensus sequence: CAGTGCTCCACTGTGBT

Reverse complement motif Consensus sequence: ABCACAGTGGAGCACTG





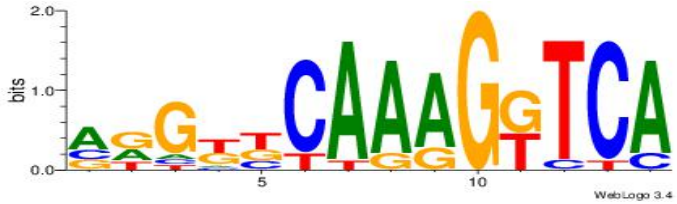
Dataset #:	3
Motif ID:	52
Motif name:	NR2F1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	4
Number of overlap:	7
Similarity score:	0.0686813

Alignment:

```
TGAMCTTTGMMCYT
---ACTTTGG----
```

Original motif Consensus sequence: TGAMCTTTGMMCYT

Reverse complement motif Consensus sequence: AKGYYCAAAGRTCA



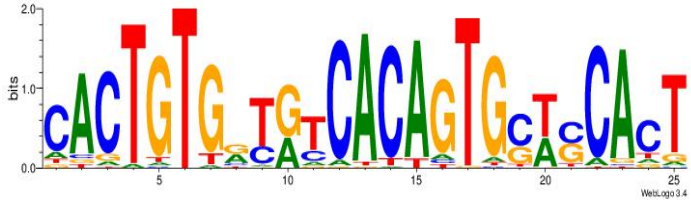
Dataset #:	4
Motif ID:	72

Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	7
Similarity score:	0.0714286

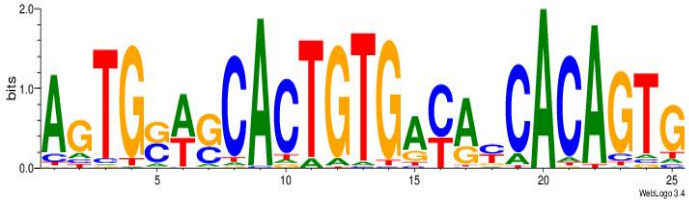
Alignment:

```
CACTGTGRTRTCACAGTGSWSCACT
-ACTTTGG-----------------
```

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



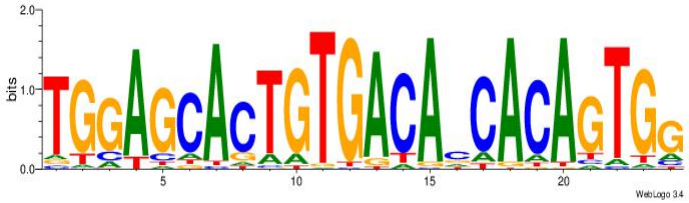
Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG



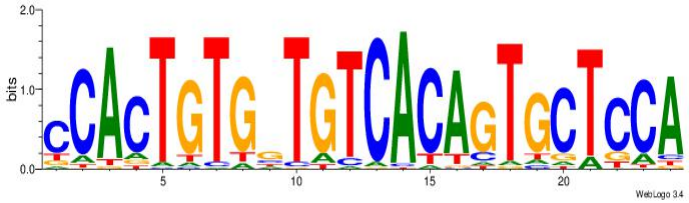
Dataset #:	4
Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	7
Similarity score:	0.0714286

Alignment:
TGGAGCACTGTGACAVCACAGTGG
----------CCAAAGT--

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

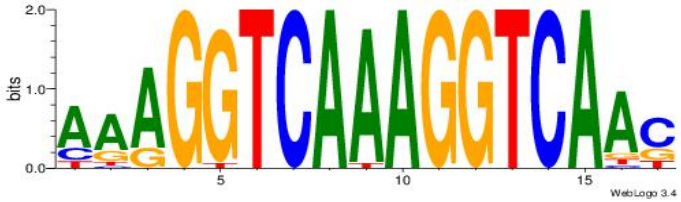


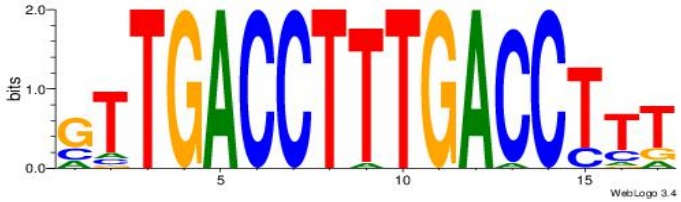
Dataset #:	3
Motif ID:	60
Motif name:	NR1H2RXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	6
Number of overlap:	7
Similarity score:	0.0728571

Alignment:
GTTGACCTTTGACCTTT
-----ACTTTGG-----

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC

Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT





Dataset #: 1 **Motif ID: 38** **Motif name: Motif 38**

Original motif Consensus sequence: ATKAYTTTG

Reverse complement motif Consensus sequence: CAAAKTYAT

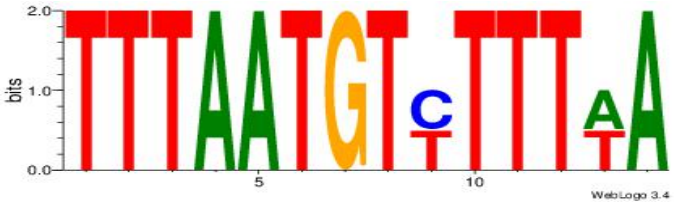
Best Matches for Motif ID 38 (Highest to Lowest)

Dataset #:	1
Motif ID:	33
Motif name:	Motif 33
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	5
Number of overlap:	9
Similarity score:	0.0486111

Alignment:

```
TTTAATGTYTTTWA
----ATKAYTTTG-
```

Original motif Consensus sequence: TTTAATGTYTTTWA



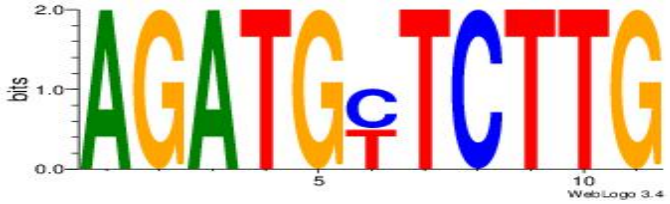
Reverse complement motif Consensus sequence: TWAAAKACATTAA

Dataset #:	1
Motif ID:	35
Motif name:	Motif 35
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	9
Similarity score:	0.0625

Alignment:

```
CAAGAKCATCT
CAAAKTYAT--
```

Original motif Consensus sequence: AGATGYTCTTG



Reverse complement motif Consensus sequence: CAAGAKCATCT

Dataset #:	1
Motif ID:	18
Motif name:	Motif 18
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	9
Similarity score:	0.0625

Alignment:

```
GCTGGACTTTG
ATKAYTTTG--
```

Original motif Consensus sequence: CAAAGTCCAGC

Reverse complement motif Consensus sequence: GCTGGACTTTG

Dataset #:	1
Motif ID:	8
Motif name:	Motif 8
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	9

Similarity score: 0.0625

Alignment:
TGAAAATSCTT
-CAAAKTYAT-

Original motif Consensus sequence: TGAAAATSCTT

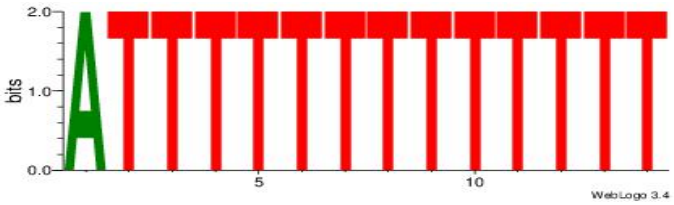
Reverse complement motif Consensus sequence: AAGSATTTTCA

Dataset #: 2
Motif ID: 49
Motif name: Motif 49
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 6
Number of overlap: 9
Similarity score: 0.0625

Alignment:
ATTTTTTTTTTTTT
ATKAYTTTG-----

Original motif Consensus sequence: AAAAAAAAAAAAAT

Reverse complement motif Consensus sequence: ATTTTTTTTTTTTT



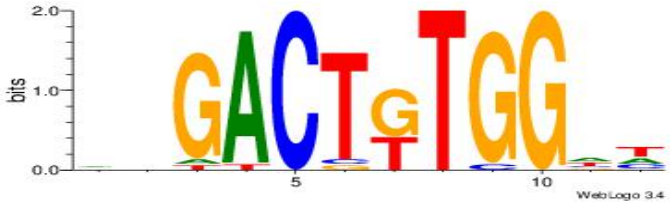
Dataset #:	4
Motif ID:	75
Motif name:	wwCCAmAGTCmt
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	9
Similarity score:	0.0650253

Alignment:

```
DDCCAMAGTCHB
---CAAAKTYAT
```

Original motif Consensus sequence: DDCCAMAGTCHB

Reverse complement motif Consensus sequence: VDGACTRTGGDD



Dataset #:	4
Motif ID:	69

Motif name:	atactttggc
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	9
Similarity score:	0.0763889

Alignment:

```
GCCAAAGTAT
-CAAAKTYAT
```

Original motif Consensus sequence: ATACTTTGGC

Reverse complement motif Consensus sequence: GCCAAAGTAT

Dataset #:	1
Motif ID:	7
Motif name:	Motif 7
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	9
Similarity score:	0.0763889

Alignment:
AATAGYATTTT
-ATKAYTTTG-

Original motif Consensus sequence: AAAATKCTATT

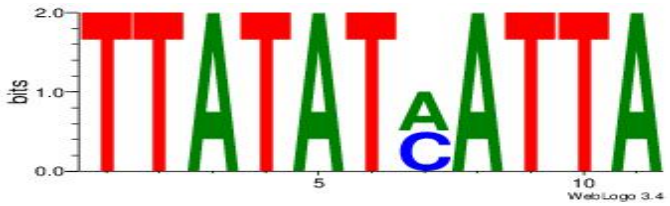
Reverse complement motif Consensus sequence: AATAGYATTTT

Dataset #:	1
Motif ID:	14
Motif name:	Motif 14
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	9
Similarity score:	0.0763889

Alignment:
TAATKATATAA
--ATKAYTTTG

Original motif Consensus sequence: TAATKATATAA

Reverse complement motif Consensus sequence: TTATATYATTA



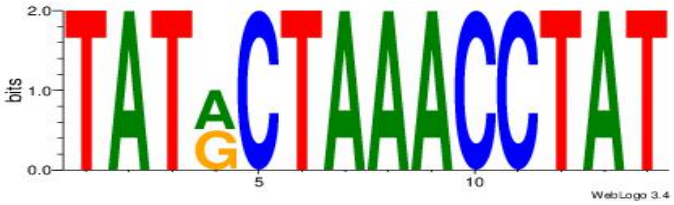
Dataset #:	1
Motif ID:	46
Motif name:	Motif 46
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	9
Similarity score:	0.0763889

Alignment:

```
TATKCTAAACCTAT
-----CAAAKTYAT
```

Original motif Consensus sequence: ATAGGTTTAGYATA

Reverse complement motif Consensus sequence: TATKCTAAACCTAT



Dataset #: 1 Motif ID: 39 Motif name: Motif 39

Original motif Consensus sequence: GCTGTGAC

Reverse complement motif Consensus sequence: GTCACAGC

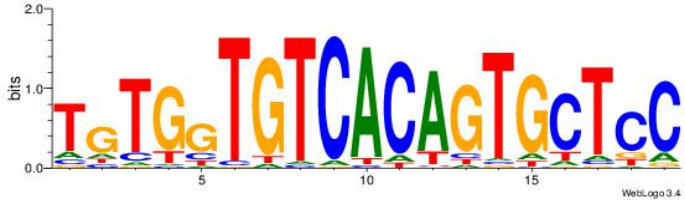
Best Matches for Motif ID 39 (Highest to Lowest)

Dataset #:	4
Motif ID:	67
Motif name:	TgTGgTGTCACAGTGCTCC
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	6
Number of overlap:	8
Similarity score:	0.0546875

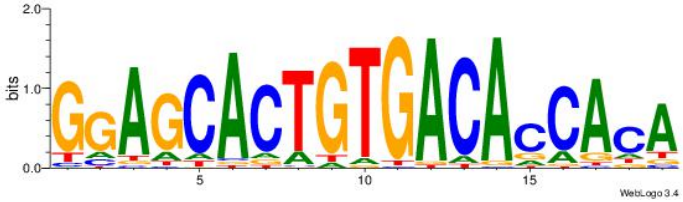
Alignment:

```
GGAGCACTGTGACACCACA
-----GCTGTGAC------
```

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA

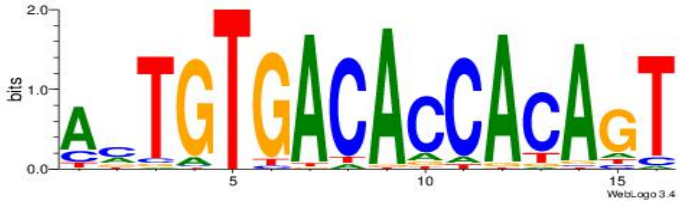


Dataset #:	4
Motif ID:	71
Motif name:	AmTGTGACACCACAGT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	9
Number of overlap:	8
Similarity score:	0.0551758

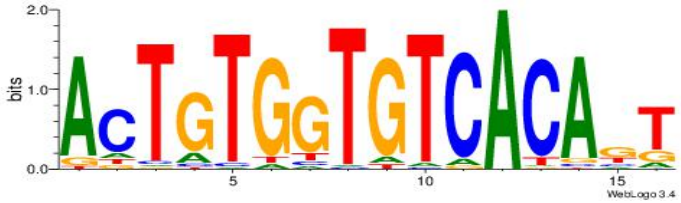
Alignment:

```
ACTGTGGTGTCACART
--------GTCACAGC
```

Original motif Consensus sequence: AMTGTGACACCACAGT



Reverse complement motif Consensus sequence: ACTGTGGTGTCACART

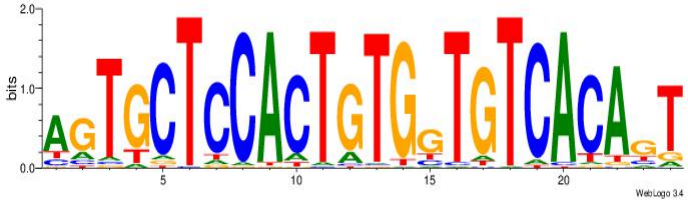


Dataset #:	4
Motif ID:	77
Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	17

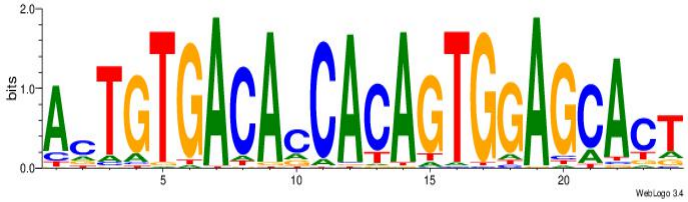
Number of overlap: 8
Similarity score: 0.0580986

Alignment:
ACTGTGACACCACAGTGGAGCACT
GCTGTGAC----------

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



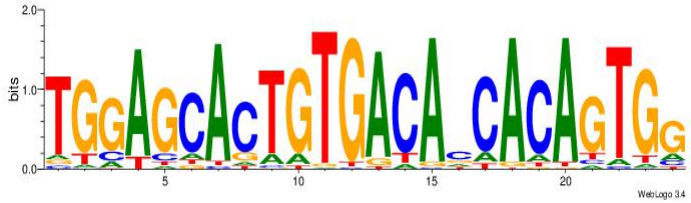
Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT



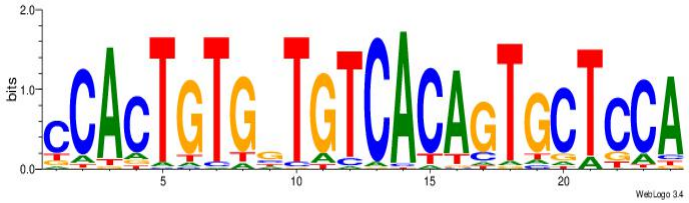
Dataset #: 4
Motif ID: 73
Motif name: TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 11
Number of overlap: 8
Similarity score: 0.058277

Alignment:
CCACTGTGVTGTCACAGTGCTCCA
----------GTCACAGC------

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

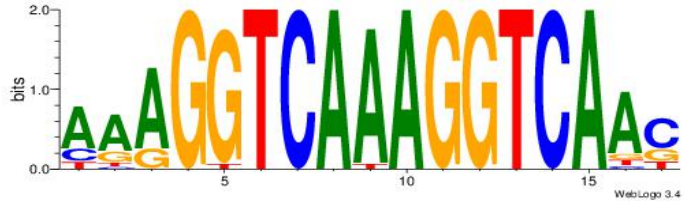


Dataset #:	3
Motif ID:	60
Motif name:	NR1H2RXRA
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	5
Number of overlap:	8
Similarity score:	0.06375

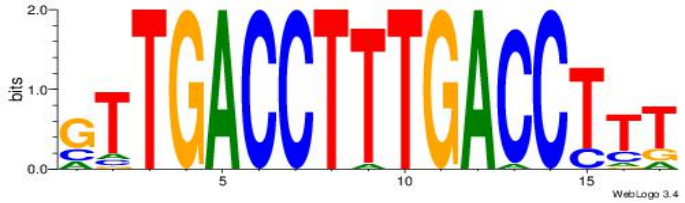
Alignment:

```
AAAGGTCAAAGGTCAAC
----GTCACAGC-----
```

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC



Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT

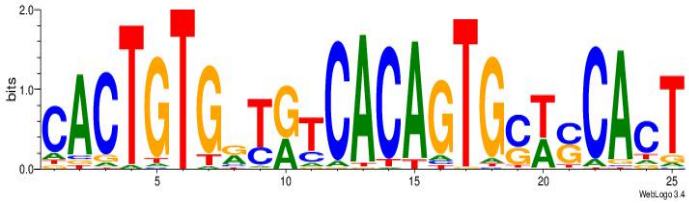


Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	9
Number of overlap:	8
Similarity score:	0.0659722

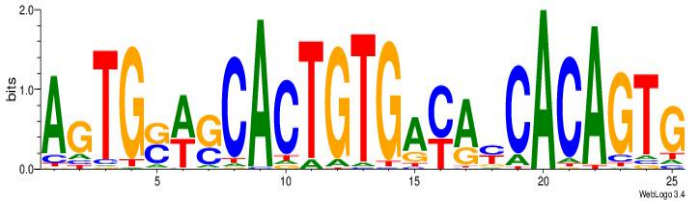
Alignment:

```
AGTGSWSCACTGTGAMAMCACAGTG
--------GCTGTGAC---------
```

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG

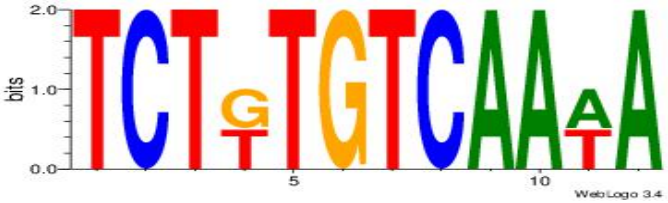


Dataset #:	1
Motif ID:	16
Motif name:	Motif 16
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1

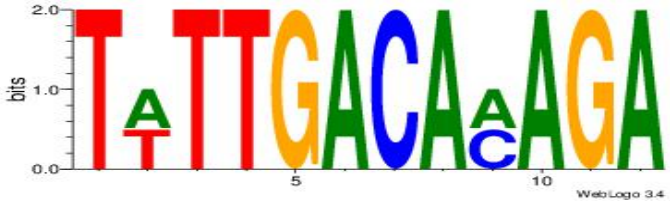
Number of overlap: 8
Similarity score: 0.078125

Alignment:
TCTKTGTCAAWA
GCTGTGAC----

Original motif Consensus sequence: TCTKTGTCAAWA



Reverse complement motif Consensus sequence: TWTTGACAYAGA

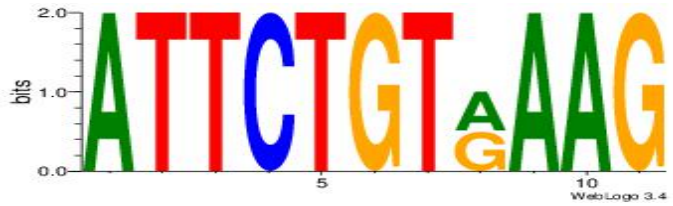


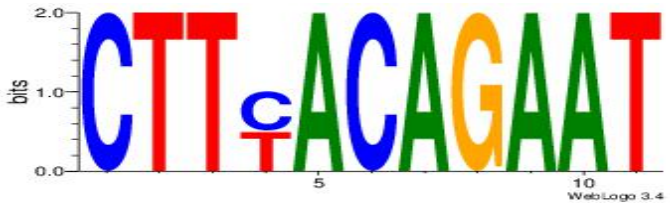
Dataset #: 1
Motif ID: 27
Motif name: Motif 27
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 2
Number of overlap: 8
Similarity score: 0.078125

Alignment:
ATTCTGTRAAG
--GCTGTGAC-

Original motif Consensus sequence: ATTCTGTRAAG

Reverse complement motif Consensus sequence: CTTKACAGAAT



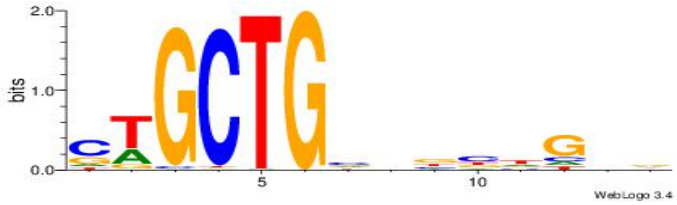


Dataset #:	5
Motif ID:	88
Motif name:	TFF11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	8
Similarity score:	0.0926496

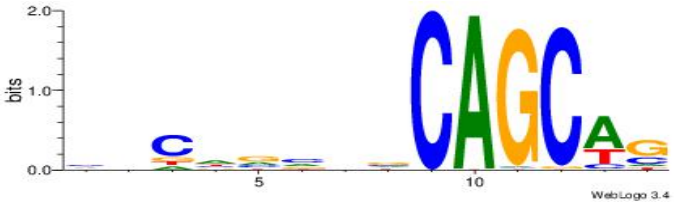
Alignment:

```
HVCDBBDBCAGCAG
----GTCACAGC--
```

Original motif Consensus sequence: CTGCTGBDBBDGBD



Reverse complement motif Consensus sequence: HVCDBBDBCAGCA



Dataset #:	1
Motif ID:	25

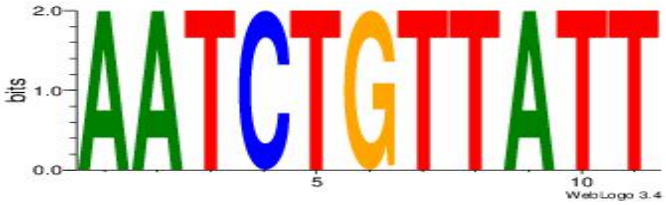
Motif name:	Motif 25
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	8
Similarity score:	0.09375

Alignment:

```
AATCTGTTATT
-GCTGTGAC--
```

Original motif Consensus sequence: AATAACAGATT

Reverse complement motif Consensus sequence: AATCTGTTATT



Dataset #: 1 Motif ID: 40 Motif name: Motif 40

Original motif Consensus sequence: AAGTTCA

Reverse complement motif Consensus sequence: TGAACTT

Best Matches for Motif ID 40 (Highest to Lowest)

Dataset #:	1
Motif ID:	18
Motif name:	Motif 18
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	7
Similarity score:	0.0357143

Alignment:

```
CAAAGTCCAGC
--AAGTTCA--
```

Original motif Consensus sequence: CAAAGTCCAGC

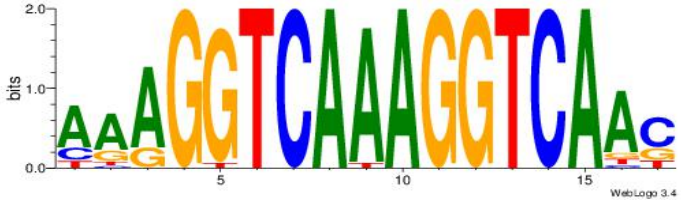
Reverse complement motif Consensus sequence: GCTGGACTTTG

Dataset #:	3
Motif ID:	60
Motif name:	NR1H2RXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	7

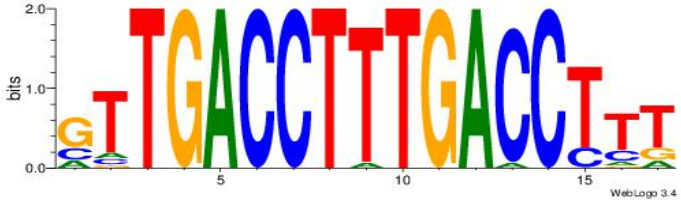
Similarity score: 0.0371429

Alignment:
AAAGGTCAAAGGTCAAC
--------AAGTTCA--

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC



Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT

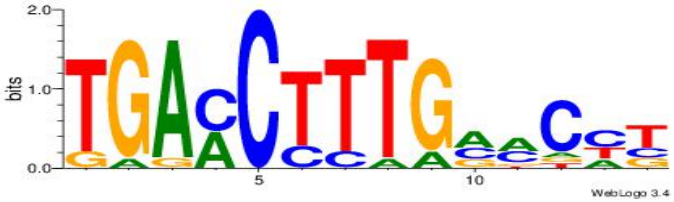


Dataset #:	3
Motif ID:	52
Motif name:	NR2F1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	8
Number of overlap:	7
Similarity score:	0.043956

Alignment:
TGAMCTTTGMMCYT
TGAACTT-------

Original motif Consensus sequence: TGAMCTTTGMMCYT

Reverse complement motif Consensus sequence: AKGYYCAAAGRTC

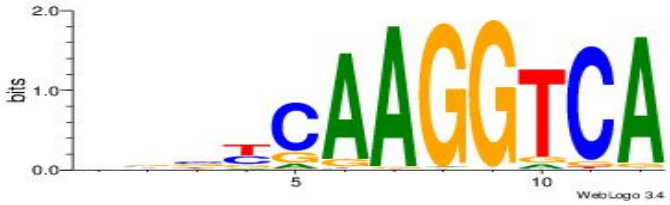


Dataset #:	3
Motif ID:	54
Motif name:	Esrrb
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	6
Number of overlap:	7
Similarity score:	0.0492088

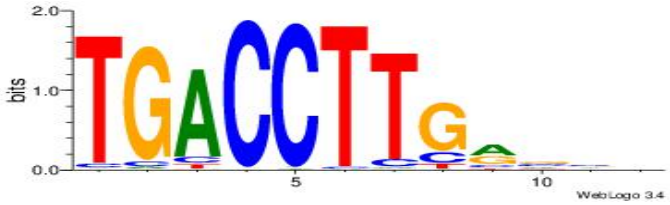
Alignment:

```
TGACCTTGMBBB
TGAACTT-----
```

Original motif Consensus sequence: VBBYCAAGGTCA



Reverse complement motif Consensus sequence: TGACCTTGMBBB



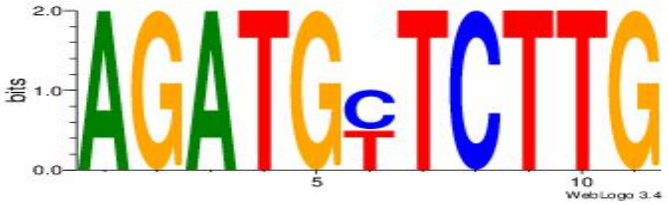
Dataset #:	1
Motif ID:	35

Motif name:	Motif 35
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	7
Similarity score:	0.0535714

Alignment:

```
AGATGYTCTTG
-TGAACTT---
```

Original motif Consensus sequence: AGATGYTCTTG



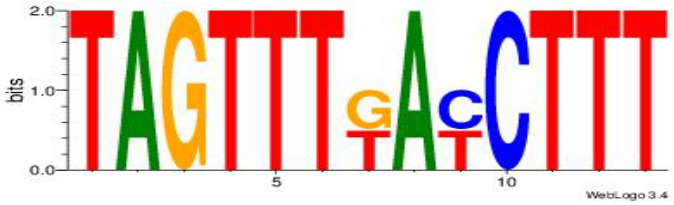
Reverse complement motif Consensus sequence: CAAGAKCATCT

Dataset #:	1
Motif ID:	15
Motif name:	Motif 15
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	6
Number of overlap:	7
Similarity score:	0.0535714

Alignment:
AAAGRTMAAACTA
-AAGTTCA-----

Original motif Consensus sequence: AAAGRTMAAACTA

Reverse complement motif Consensus sequence: TAGTTTYAKCTTT



Dataset #:	3
Motif ID:	61
Motif name:	NR4A2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	7
Similarity score:	0.0596546

Alignment:
GTGACCTT
-TGAACTT

Original motif Consensus sequence: AAGGTCAC

Reverse complement motif Consensus sequence: GTGACCTT

Dataset #:	3
Motif ID:	62
Motif name:	RORA_1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	7
Similarity score:	0.0614286

Alignment:

```
TGACCTDVWT
TGAACTT---
```

Original motif Consensus sequence: AWVDAGGTCA

Reverse complement motif Consensus sequence: TGACCTDVWT

Dataset #:	5
Motif ID:	86

Motif name:	TFW2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	4
Number of overlap:	7
Similarity score:	0.0674603

Alignment:

```
YGGACTTACG
TGAACTT---
```

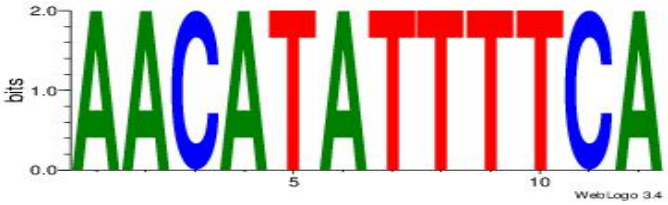
Original motif Consensus sequence: YGGACTTACG

Reverse complement motif Consensus sequence: CGTAAGTCCK

Dataset #:	1
Motif ID:	9
Motif name:	Motif 9
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	6
Number of overlap:	7
Similarity score:	0.0714286

Alignment:
TGAAAATATGTT
TGAACTT-----

Original motif Consensus sequence: AACATATTTTCA

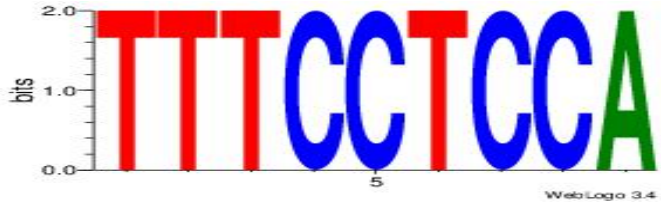


Reverse complement motif Consensus sequence: TGAAAATATGTT

Dataset #: 1 Motif ID: 41 Motif name: Motif 41

Original motif Consensus sequence: TGGAGGAAA

Reverse complement motif Consensus sequence: TTTCCTCCA



Best Matches for Motif ID 41 (Highest to Lowest)

Dataset #:	1
Motif ID:	28
Motif name:	Motif 28
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1

Number of overlap: 9
Similarity score: 0.0645833

Alignment:
TTTACTAAAT
TTTCCTCCA-

Original motif Consensus sequence: ATTTAGTAAA

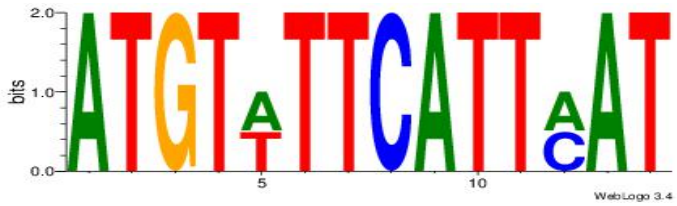
Reverse complement motif Consensus sequence: TTTACTAAAT

Dataset #: 1
Motif ID: 23
Motif name: Motif 23
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 2
Number of overlap: 9
Similarity score: 0.0645833

Alignment:
ATYAATGAAWACAT
----TGGAGGAAA-

Original motif Consensus sequence: ATGTWTTCATTMAT

Reverse complement motif Consensus sequence: ATYAATGAAWACA

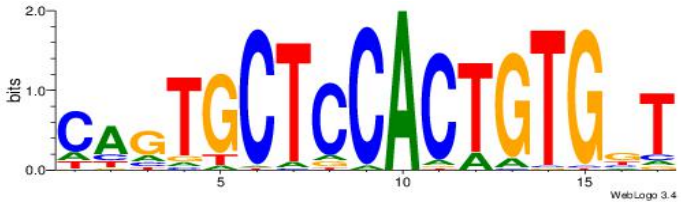


Dataset #:	4
Motif ID:	70
Motif name:	CagTGCTCCACTGTGgT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	8
Number of overlap:	9
Similarity score:	0.068287

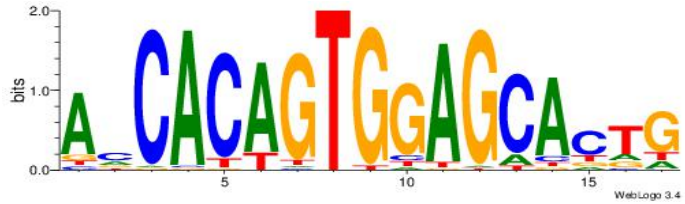
Alignment:

```
ABCACAGTGGAGCACTG
-------TGGAGGAAA-
```

Original motif Consensus sequence: CAGTGCTCCACTGTGBT



Reverse complement motif Consensus sequence: ABCACAGTGGAGCACTG



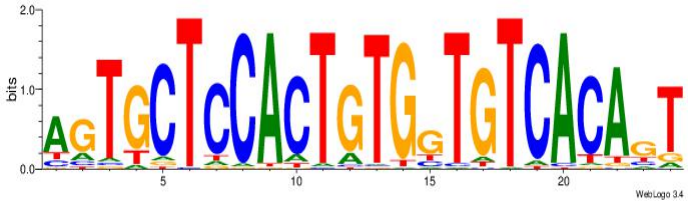
Dataset #:	4

Motif ID:	77
Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	9
Similarity score:	0.0692782

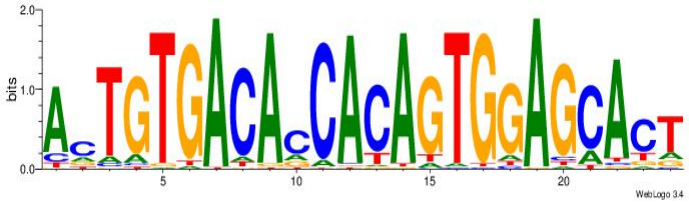
Alignment:

```
ACTGTGACACCACAGTGGAGCACT
---------------TGGAGGAAA
```

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT

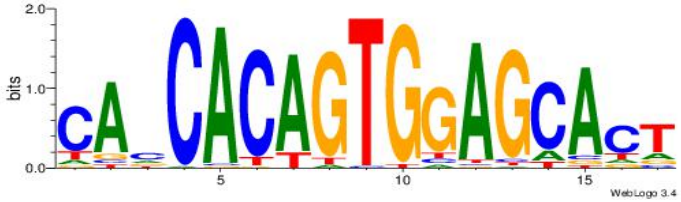


Dataset #:	4
Motif ID:	76
Motif name:	CAcCACAGTGGAGCAct
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	9
Number of overlap:	9

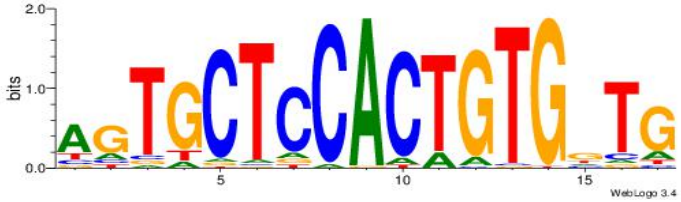
Similarity score: 0.0697917

Alignment:
AGTGCTCCACTGTGDTG
TTTCCTCCA--------

Original motif Consensus sequence: CAHCACAGTGGAGCACT



Reverse complement motif Consensus sequence: AGTGCTCCACTGTGDTG

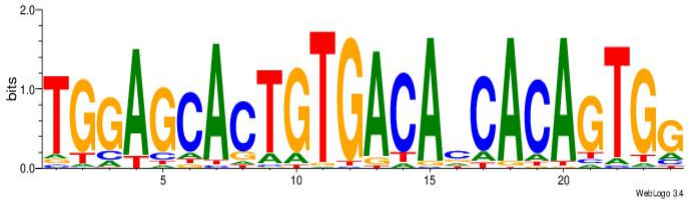


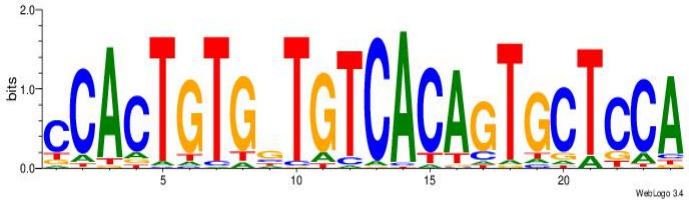
Dataset #: 4
Motif ID: 73
Motif name: TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 16
Number of overlap: 9
Similarity score: 0.0844782

Alignment:
CCACTGTGVTGTCACAGTGCTCCA
---------------TTTCCTCCA

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG

Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA



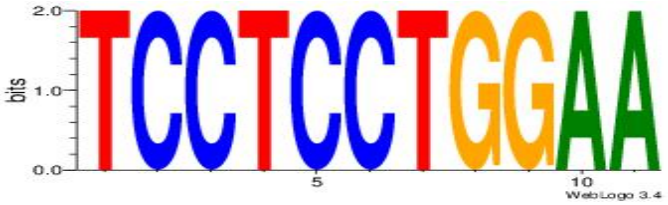


Dataset #:	1
Motif ID:	20
Motif name:	Motif 20
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	9
Similarity score:	0.0923611

Alignment:

```
TTCCAGGAGGA
-TGGAGGAAA-
```

Original motif Consensus sequence: TCCTCCTGGAA



Reverse complement motif Consensus sequence: TTCCAGGAGGA

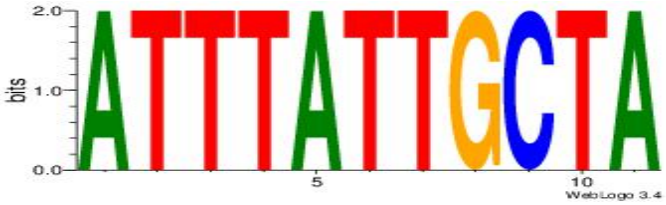
Dataset #:	1
Motif ID:	29

Motif name:	Motif 29
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	9
Similarity score:	0.0923611

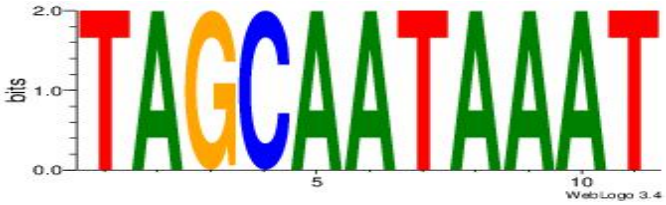
Alignment:

```
TAGCAATAAAT
-TGGAGGAAA-
```

Original motif Consensus sequence: ATTTATTGCTA



Reverse complement motif Consensus sequence: TAGCAATAAAT

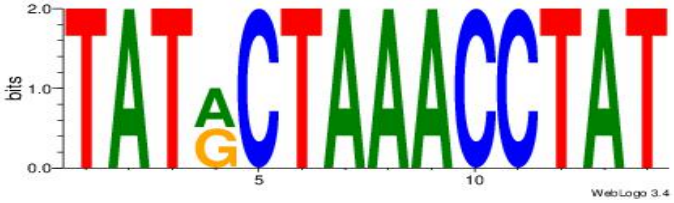


Dataset #:	1
Motif ID:	46
Motif name:	Motif 46
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	9
Similarity score:	0.0923611

Alignment:
TATKCTAAACCTAT
TTTCCTCCA-----

Original motif Consensus sequence: ATAGGTTTAGYATA

Reverse complement motif Consensus sequence: TATKCTAAACCTAT

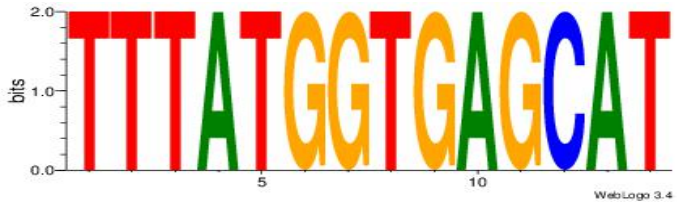


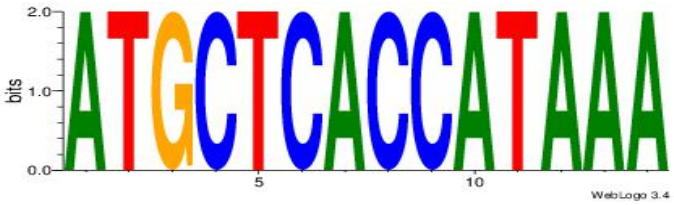
Dataset #:	1
Motif ID:	22
Motif name:	Motif 22
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	9
Similarity score:	0.0923611

Alignment:
ATGCTCACCATAAA
-TTTCCTCCA----

Original motif Consensus sequence: TTTATGGTGAGCAT

Reverse complement motif Consensus sequence: ATGCTCACCATAA

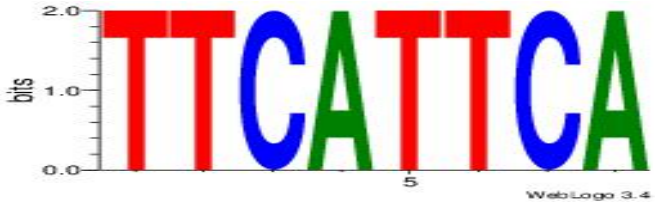




Dataset #: 1 Motif ID: 42 Motif name: Motif 42

Original motif Consensus sequence: TGAATGAA

Reverse complement motif Consensus sequence: TTCATTCA



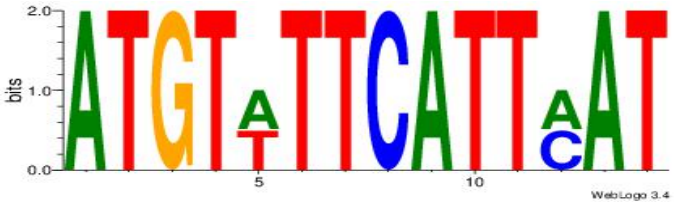
Best Matches for Motif ID 42 (Highest to Lowest)

Dataset #:	1
Motif ID:	23
Motif name:	Motif 23
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	8
Similarity score:	0.015625

Alignment:

```
ATYAATGAAWACAT
-----TGAATGAA-
```

Original motif Consensus sequence: ATGTWTTCATTMAT



Reverse complement motif Consensus sequence: ATYAATGAAWACA

Dataset #:	1
Motif ID:	44
Motif name:	Motif 44
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	8
Similarity score:	0.046875

Alignment:

```
TTCTTYCATT
TTCATTCA--
```

Original motif Consensus sequence: AATGKAAGAA

Reverse complement motif Consensus sequence: TTCTTYCATT

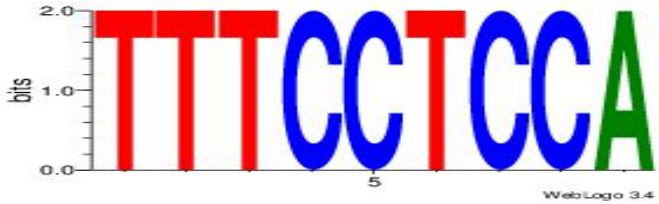
Dataset #:	1
Motif ID:	41
Motif name:	Motif 41
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	8
Similarity score:	0.0625

Alignment:

```
TGGAGGAAA
TGAATGAA-
```

Original motif Consensus sequence: TGGAGGAAA

Reverse complement motif Consensus sequence: TTTCCTCCA

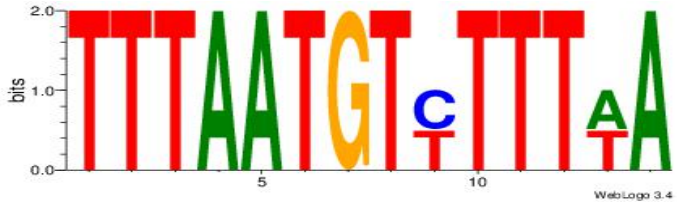


Dataset #:	1
Motif ID:	33
Motif name:	Motif 33
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	8

Similarity score: 0.078125

Alignment:
TWAAAKACATTAAA
-----TTCATTCA-

Original motif Consensus sequence: TTTAATGTYTTTWA



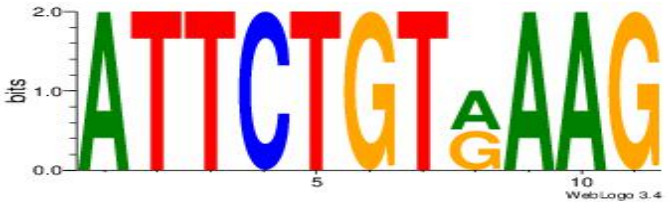
Reverse complement motif Consensus sequence: TWAAAKACATTAA

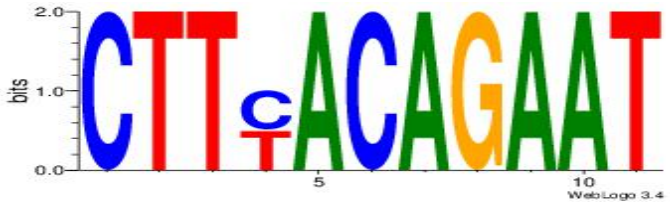
Dataset #: 1
Motif ID: 27
Motif name: Motif 27
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 3
Number of overlap: 8
Similarity score: 0.078125

Alignment:
ATTCTGTRAAG
--TTCATTCA-

Original motif Consensus sequence: ATTCTGTRAAG

Reverse complement motif Consensus sequence: CTTKACAGAAT



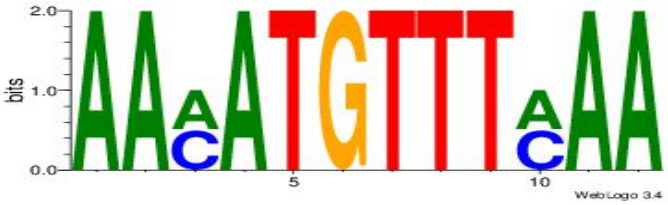


Dataset #:	1
Motif ID:	11
Motif name:	Motif 11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	8
Similarity score:	0.078125

Alignment:

```
TTYAAACATYTT
TTCATTCA----
```

Original motif Consensus sequence: AAMATGTTTMAA



Reverse complement motif Consensus sequence: TTYAAACATYTT

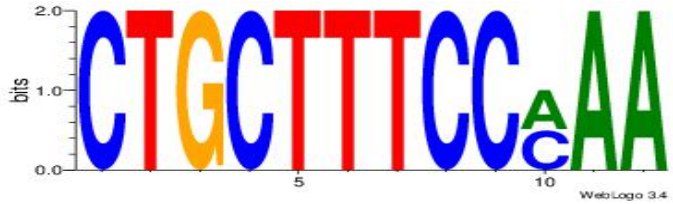
Dataset #:	1
Motif ID:	21

Motif name:	Motif 21
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	8
Similarity score:	0.09375

Alignment:

```
TTYGGAAAGCAG
-TGAATGAA---
```

Original motif Consensus sequence: CTGCTTTCCMAA



Reverse complement motif Consensus sequence: TTYGGAAAGCAG

Dataset #:	4
Motif ID:	80
Motif name:	taaacgatgcc
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	8
Similarity score:	0.09375

Alignment:
TAAACGATGCC
TGAATGAA---

Original motif Consensus sequence: TAAACGATGCC

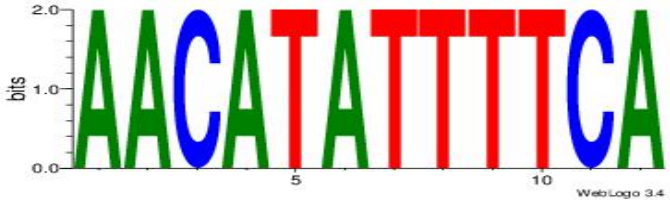
Reverse complement motif Consensus sequence: GGCATCGTTTA

Dataset #:	1
Motif ID:	9
Motif name:	Motif 9
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	5
Number of overlap:	8
Similarity score:	0.09375

Alignment:
AACATATTTTCA
TTCATTCA----

Original motif Consensus sequence: AACATATTTTCA

Reverse complement motif Consensus sequence: TGAAAATATGTT



Dataset #:	1
Motif ID:	24
Motif name:	Motif 24
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	8
Similarity score:	0.09375

Alignment:

```
TTWATGWCTTT
---TGAATGAA
```

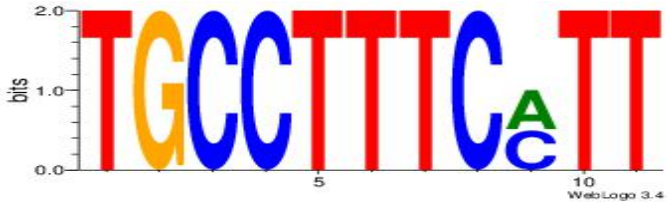
Original motif Consensus sequence: AAAGWCATWAA

Reverse complement motif Consensus sequence: TTWATGWCTTT

Dataset #: 1 Motif ID: 43 Motif name: Motif 43

Original motif Consensus sequence: AAKGAAAGGCA

Reverse complement motif Consensus sequence: TGCCTTTCYTT



Best Matches for Motif ID 43 (Highest to Lowest)

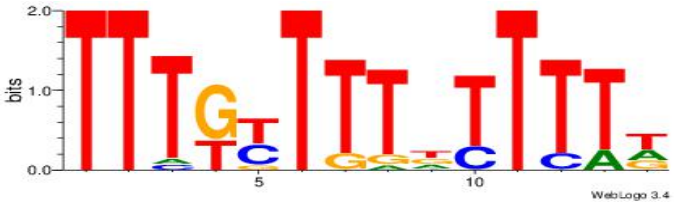
Dataset #:	1
Motif ID:	4
Motif name:	Motif 4
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	11
Similarity score:	0.102273

Alignment:

```
TTTRKTTTHTTTTH
-TGCCTTTCYTT--
```

Original motif Consensus sequence: HAAAAHAAARMAAA

Reverse complement motif Consensus sequence: TTTRKTTTHTTTTH



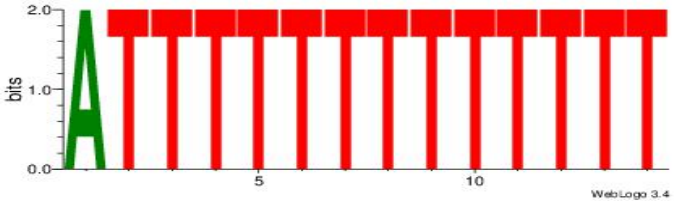
Dataset #:	2
Motif ID:	49
Motif name:	Motif 49
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	11
Similarity score:	0.102273

Alignment:

```
ATTTTTTTTTTTT
---TGCCTTTCYTT
```

Original motif Consensus sequence: AAAAAAAAAAAAT

Reverse complement motif Consensus sequence: ATTTTTTTTTTTT

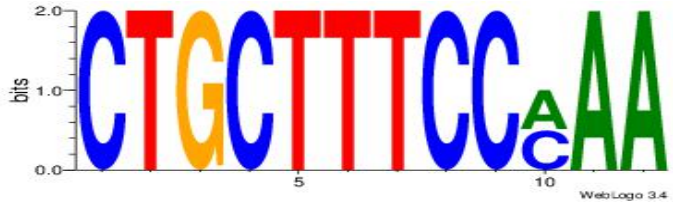


Dataset #:	1
Motif ID:	21
Motif name:	Motif 21
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11

Similarity score: 0.102273

Alignment:
CTGCTTTCCMAA
TGCCTTTCYTT-

Original motif Consensus sequence: CTGCTTTCCMAA



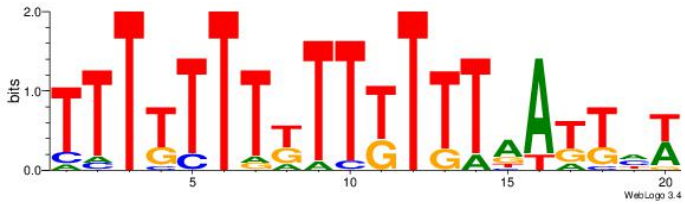
Reverse complement motif Consensus sequence: TTYGGAAAGCAG

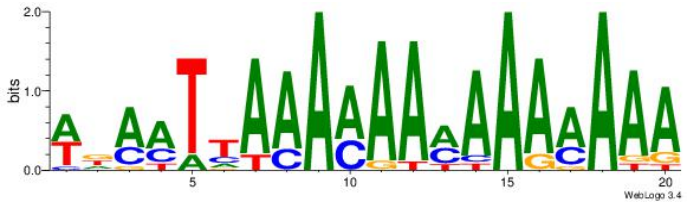
Dataset #: 5
Motif ID: 94
Motif name: TFM13
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 3
Number of overlap: 11
Similarity score: 0.112013

Alignment:
TTTTTTTKTTKTTTAATTHW
--TGCCTTTCYTT-------

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW

Reverse complement motif Consensus sequence: WHAATTAAARAARAAAAAAA



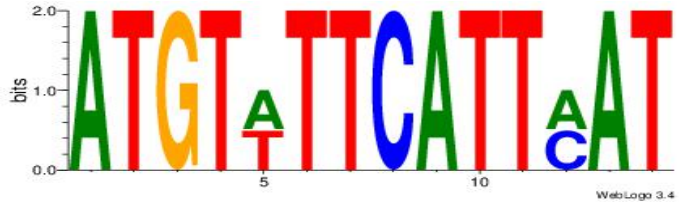


Dataset #:	1
Motif ID:	23
Motif name:	Motif 23
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	4
Number of overlap:	11
Similarity score:	0.113636

Alignment:

```
ATGTWTTCATTMAT
---TGCCTTTCYTT
```

Original motif Consensus sequence: ATGTWTTCATTMAT



Reverse complement motif Consensus sequence: ATYAATGAAWACA

Dataset #:	1
Motif ID:	8

Motif name:	Motif 8
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.113636

Alignment:

```
AAGSATTTTCA
AAKGAAAGGCA
```

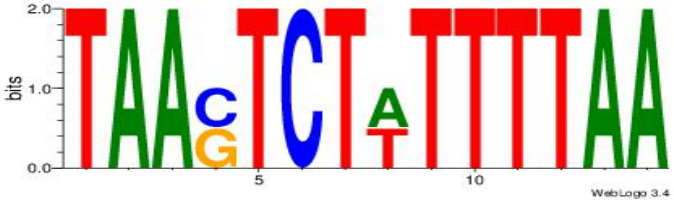
Original motif Consensus sequence: TGAAAATSCTT

Reverse complement motif Consensus sequence: AAGSATTTTCA

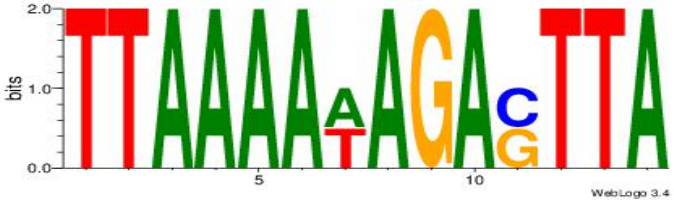
Dataset #:	1
Motif ID:	45
Motif name:	Motif 45
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	4
Number of overlap:	11
Similarity score:	0.113636

Alignment:
TAASTCTWTTTTAA
TGCCTTTCYTT---

Original motif Consensus sequence: TAASTCTWTTTTAA



Reverse complement motif Consensus sequence: TTAAAAWAGASTT



Dataset #:	1
Motif ID:	24
Motif name:	Motif 24
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.113636

Alignment:
TTWATGWCTTT
TGCCTTTCYTT

Original motif Consensus sequence: AAAGWCATWAA

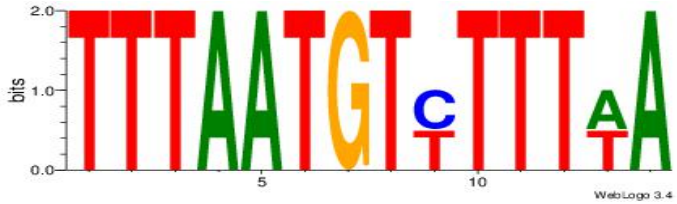
Reverse complement motif Consensus sequence: TTWATGWCTTT

Dataset #:	1
Motif ID:	33
Motif name:	Motif 33
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	11
Similarity score:	0.113636

Alignment:

```
TWAAAKACATTAAA
-AAKGAAAGGCA--
```

Original motif Consensus sequence: TTTAATGTYTTTWA



Reverse complement motif Consensus sequence: TWAAAKACATTAA

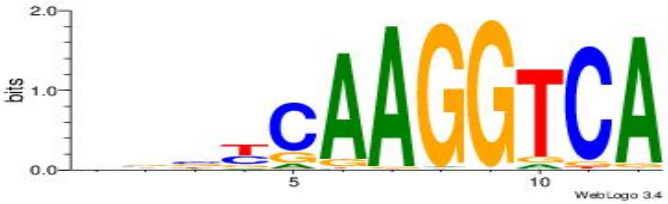
Dataset #:	3
Motif ID:	54

Motif name:	Esrrb
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.116255

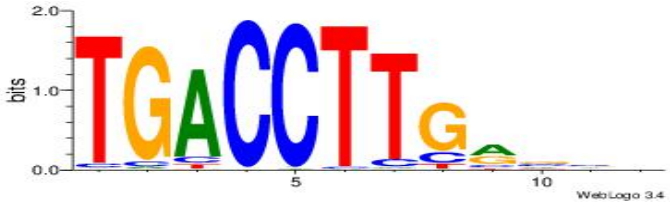
Alignment:

```
VBBYCAAGGTCA
-AAKGAAAGGCA
```

Original motif Consensus sequence: VBBYCAAGGTCA



Reverse complement motif Consensus sequence: TGACCTTGMBBB



Dataset #: 1 Motif ID: 44 Motif name: Motif 44

Original motif Consensus sequence: AATGKAAGAA

Reverse complement motif Consensus sequence: TTCTTYCATT

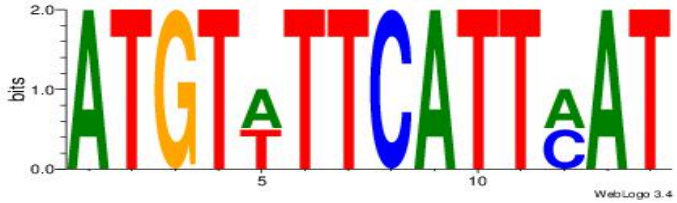
Best Matches for Motif ID 44 (Highest to Lowest)

Dataset #:	1
Motif ID:	23
Motif name:	Motif 23
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	10
Similarity score:	0.0541667

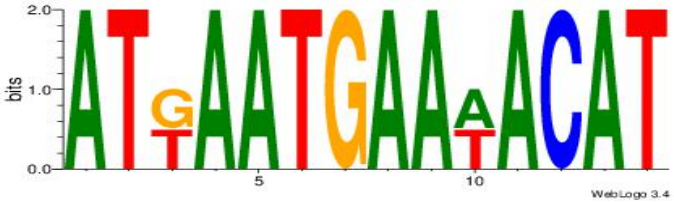
Alignment:

```
ATYAATGAAWACAT
-AATGKAAGAA---
```

Original motif Consensus sequence: ATGTWTTCATTMAT



Reverse complement motif Consensus sequence: ATYAATGAAWACA



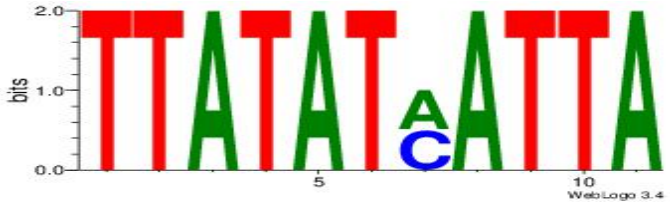
Dataset #:	1
Motif ID:	14
Motif name:	Motif 14
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	10

Similarity score: 0.0541667

Alignment:
TTATATYATTA
TTCTTYCATT-

Original motif Consensus sequence: TAATKATATAA

Reverse complement motif Consensus sequence: TTATATYATTA

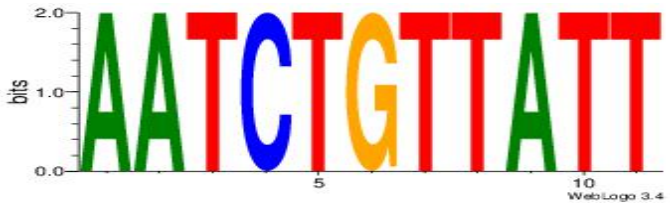


Dataset #: 1
Motif ID: 25
Motif name: Motif 25
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 1
Number of overlap: 10
Similarity score: 0.0666667

Alignment:
AATCTGTTATT
-TTCTTYCATT

Original motif Consensus sequence: AATAACAGATT

Reverse complement motif Consensus sequence: AATCTGTTATT



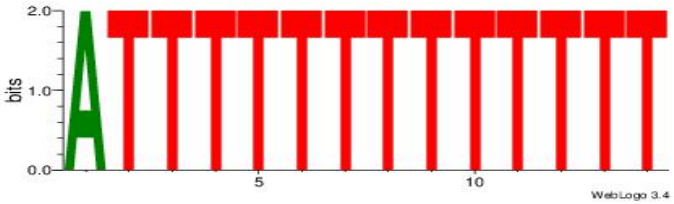
Dataset #:	2
Motif ID:	49
Motif name:	Motif 49
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	10
Similarity score:	0.0666667

Alignment:

```
ATTTTTTTTTTTTT
-TTCTTYCATT---
```

Original motif Consensus sequence: AAAAAAAAAAAAAT

Reverse complement motif Consensus sequence: ATTTTTTTTTTTTT



Dataset #:	1
Motif ID:	17

Motif name:	Motif 17
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	10
Similarity score:	0.0666667

Alignment:

```
CTTCTGACCTC
TTCTTYCATT-
```

Original motif Consensus sequence: CTTCTGACCTC

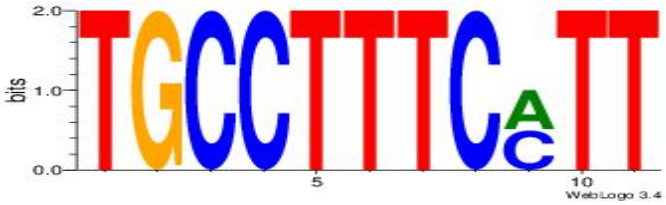
Reverse complement motif Consensus sequence: GAGGTCAGAAG

Dataset #:	1
Motif ID:	43
Motif name:	Motif 43
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	10
Similarity score:	0.0666667

Alignment:
TGCCTTTCYTT
-TTCTTYCATT

Original motif Consensus sequence: AAKGAAAGGCA

Reverse complement motif Consensus sequence: TGCCTTTCYTT

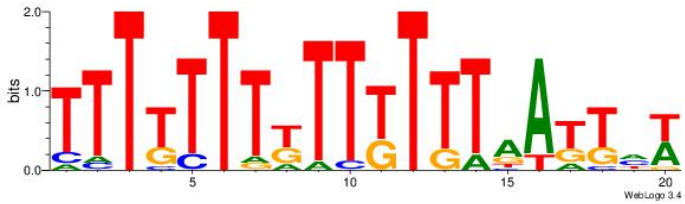


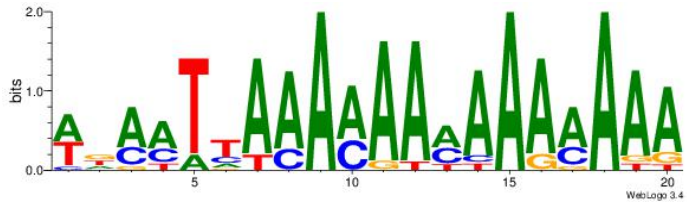
Dataset #:	5
Motif ID:	94
Motif name:	TFM13
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	9
Number of overlap:	10
Similarity score:	0.0684524

Alignment:
WHAATTAAARAARAAAAAAA
--AATGKAAGAA--------

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW

Reverse complement motif Consensus sequence:
WHAATTAAARAARAAAAAAA





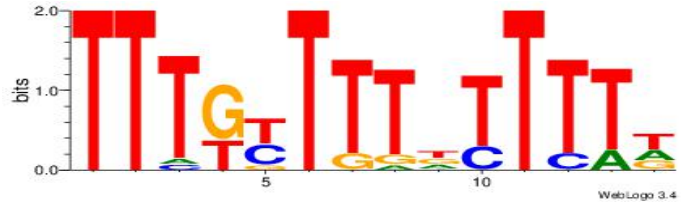
Dataset #:	1
Motif ID:	4
Motif name:	Motif 4
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	10
Similarity score:	0.0754167

Alignment:

```
TTTRKTTTHTTTTH
-TTCTTYCATT---
```

Original motif Consensus sequence: HAAAAHAAARMAAA

Reverse complement motif Consensus sequence: TTTRKTTTHTTTTH



Dataset #:	1
Motif ID:	24

Motif name:	Motif 24
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	10
Similarity score:	0.0791667

Alignment:

```
AAAGWCATWAA
AATGKAAGAA-
```

Original motif Consensus sequence: AAAGWCATWAA

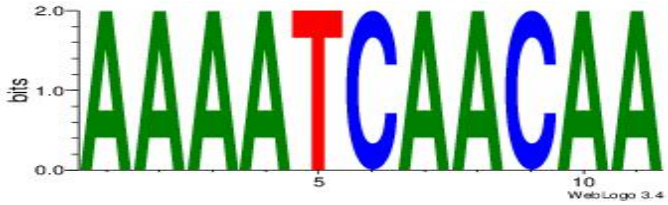
Reverse complement motif Consensus sequence: TTWATGWCTTT

Dataset #:	1
Motif ID:	31
Motif name:	Motif 31
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	10
Similarity score:	0.0791667

Alignment:
AAAATCAACAA
AATGKAAGAA-

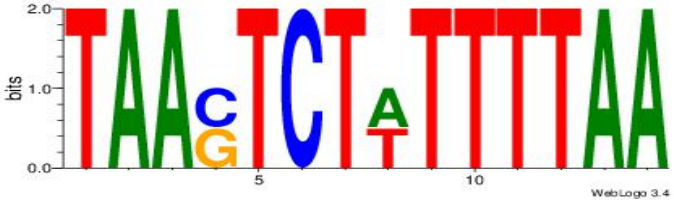
Original motif Consensus sequence: TTGTTGATTTT

Reverse complement motif Consensus sequence: AAAATCAACAA



Dataset #: 1 Motif ID: 45 Motif name: Motif 45

Original motif Consensus sequence: TAASTCTWTTTTAA



Reverse complement motif Consensus sequence: TTAAAAWAGASTT

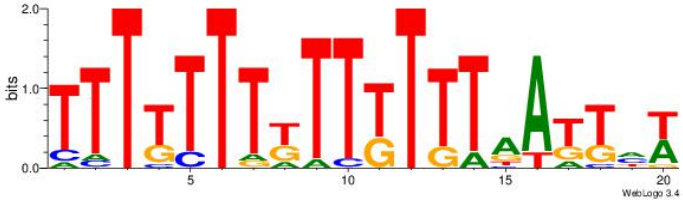
Best Matches for Motif ID 45 (Highest to Lowest)

Dataset #:	5
Motif ID:	94
Motif name:	TFM13
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	5

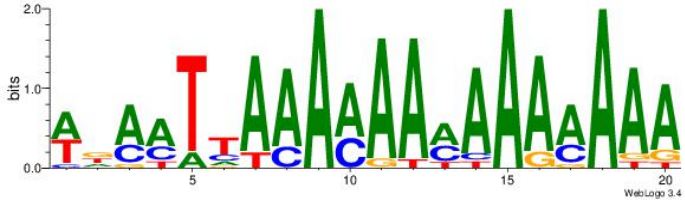
Number of overlap: 14
Similarity score: 0.100765

Alignment:
WHAATTAAARAARAAAAAAA
----TTAAAAWAGASTTA--

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW



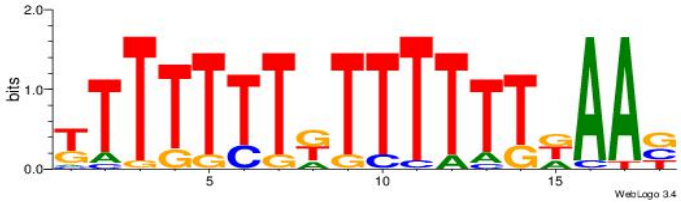
Reverse complement motif Consensus sequence:
WHAATTAAARAARAAAAAAA



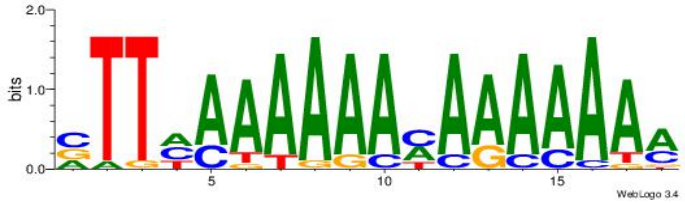
Dataset #: 5
Motif ID: 91
Motif name: TFM3
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 3
Number of overlap: 14
Similarity score: 0.104911

Alignment:
BTTHAAAAAAYAAAAAAR
--TTAAAAWAGASTTA--

Original motif Consensus sequence: KTTTTTTKTTTTTTDAAB



Reverse complement motif Consensus sequence: BTTHAAAAAAYAAAAAAR

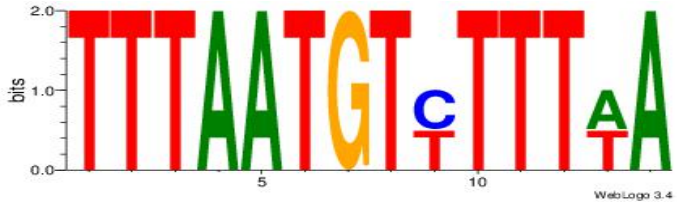


Dataset #:	1
Motif ID:	33
Motif name:	Motif 33
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	13
Similarity score:	0.576923

Alignment:

```
-TWAAAKACATTAAA
TTAAAAWAGASTTA-
```

Original motif Consensus sequence: TTTAATGTYTTTWA



Reverse complement motif Consensus sequence: TWAAAKACATTAA

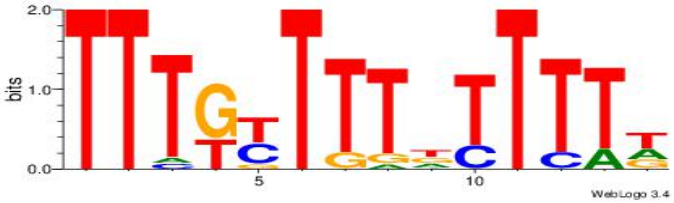
Dataset #:	1
Motif ID:	4
Motif name:	Motif 4
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	13
Similarity score:	0.591346

Alignment:

```
HAAAAHAAARMAAA-
-TTAAAAWAGASTTA
```

Original motif Consensus sequence: HAAAAHAAARMAAA

Reverse complement motif Consensus sequence: TTTRKTTTHTTTTH

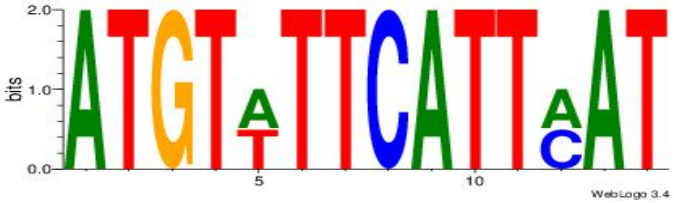


Dataset #:	1
Motif ID:	23
Motif name:	Motif 23
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	13

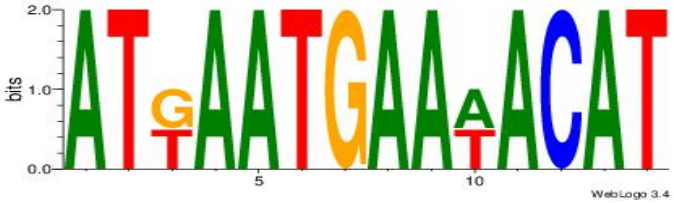
Similarity score: 0.605769

Alignment:
ATYAATGAAWACAT-
-TTAAAAWAGASTTA

Original motif Consensus sequence: ATGTWTTCATTMAT



Reverse complement motif Consensus sequence: ATYAATGAAWACA

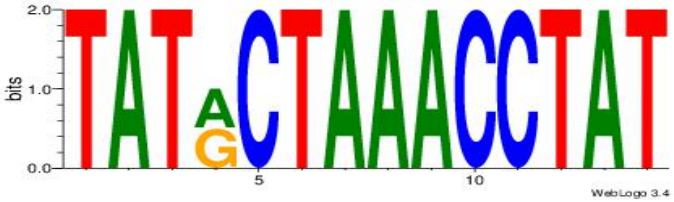


Dataset #: 1
Motif ID: 46
Motif name: Motif 46
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 2
Number of overlap: 13
Similarity score: 0.605769

Alignment:
ATAGGTTTAGYATA-
-TAASTCTWTTTTAA

Original motif Consensus sequence: ATAGGTTTAGYATA

Reverse complement motif Consensus sequence: TATKCTAAACCTAT



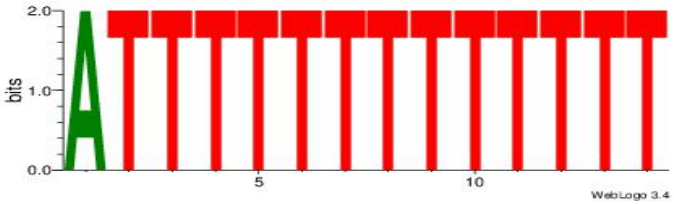
Dataset #:	2
Motif ID:	49
Motif name:	Motif 49
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	13
Similarity score:	0.605769

Alignment:

```
-ATTTTTTTTTTTTT
TAASTCTWTTTTAA-
```

Original motif Consensus sequence: AAAAAAAAAAAAAT

Reverse complement motif Consensus sequence: ATTTTTTTTTTTTT



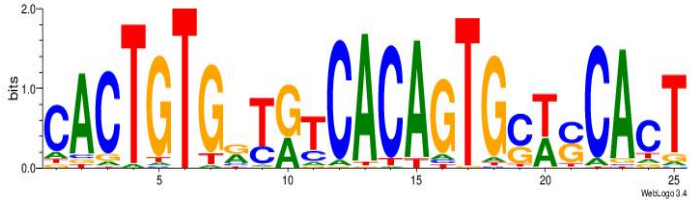
Dataset #:	4
Motif ID:	72

Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	13
Number of overlap:	13
Similarity score:	0.620726

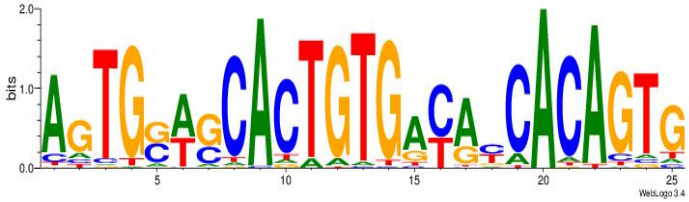
Alignment:

```
AGTGSWSCACTGTGAMAMCACAGTG-
------------TTAAAAWAGASTTA
```

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG

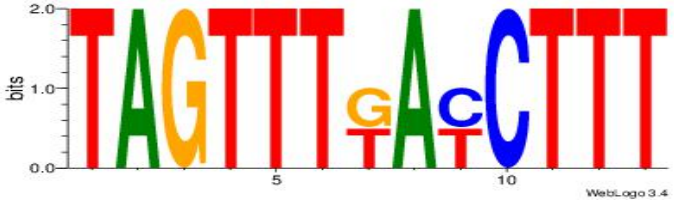


Dataset #:	1
Motif ID:	15
Motif name:	Motif 15
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	13
Similarity score:	0.625

Alignment:
AAAGRTMAAACTA-
TTAAAAWAGASTTA

Original motif Consensus sequence: AAAGRTMAAACTA

Reverse complement motif Consensus sequence: TAGTTTYAKCTTT

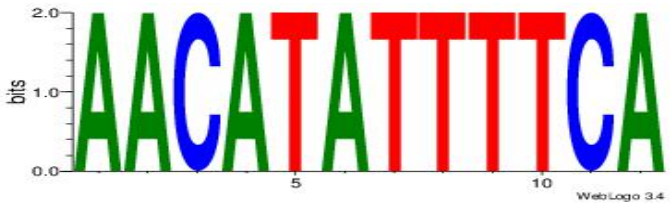


Dataset #:	1
Motif ID:	9
Motif name:	Motif 9
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	12
Similarity score:	1.09375

Alignment:
TGAAAATATGTT--
TTAAAAWAGASTTA

Original motif Consensus sequence: AACATATTTTCA

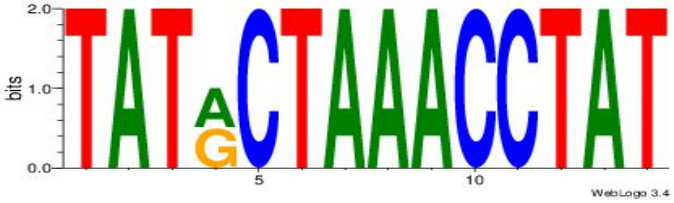
Reverse complement motif Consensus sequence: TGAAAATATGTT



Dataset #: 1 **Motif ID: 46** **Motif name: Motif 46**

Original motif Consensus sequence: ATAGGTTTAGYATA

Reverse complement motif Consensus sequence: TATKCTAAACCTAT



Best Matches for Motif ID 46 (Highest to Lowest)

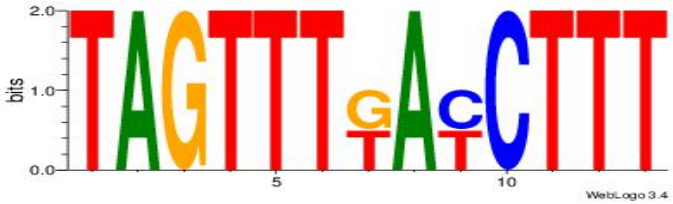
Dataset #:	1
Motif ID:	15
Motif name:	Motif 15
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	13
Similarity score:	0.0865385

Alignment:

```
-AAAGRTMAAACTA
TATKCTAAACCTAT
```

Original motif Consensus sequence: AAAGRTMAAACTA

Reverse complement motif Consensus sequence: TAGTTTYAKCTTT

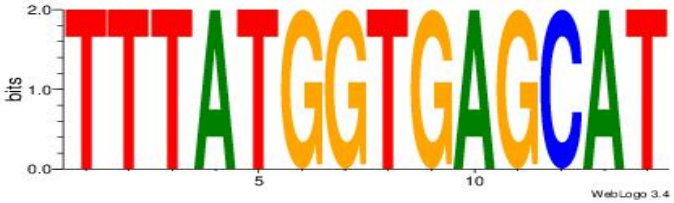


Dataset #:	1
Motif ID:	22
Motif name:	Motif 22
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	13
Similarity score:	0.0865385

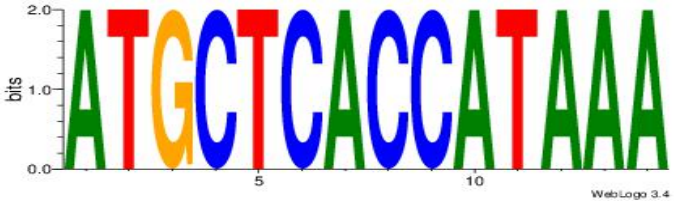
Alignment:

```
TTTATGGTGAGCAT-
-ATAGGTTTAGYATA
```

Original motif Consensus sequence: TTTATGGTGAGCAT



Reverse complement motif Consensus sequence: ATGCTCACCATAA

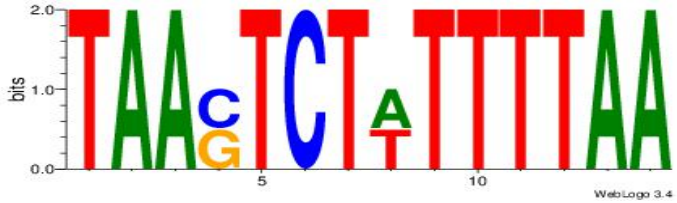


Dataset #:	1
Motif ID:	45
Motif name:	Motif 45
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	13
Similarity score:	0.105769

Alignment:

```
-TAASTCTWTTTTAA
ATAGGTTTAGYATA-
```

Original motif Consensus sequence: TAASTCTWTTTTAA



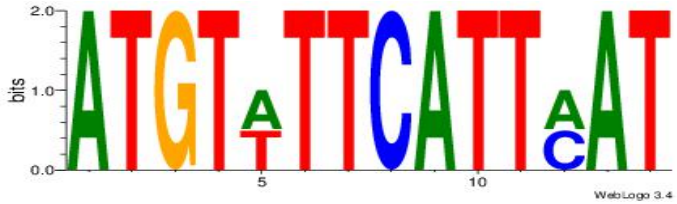
Reverse complement motif Consensus sequence: TTAAAAWAGASTT

Dataset #:	1
Motif ID:	23
Motif name:	Motif 23
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	12

Similarity score: 0.614583

Alignment:
ATYAATGAAWACAT--
--TATKCTAAACCTAT

Original motif Consensus sequence: ATGTWTTCATTMAT



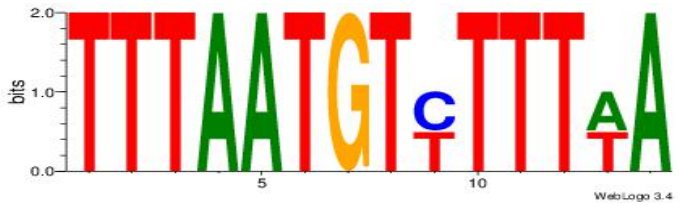
Reverse complement motif Consensus sequence: ATYAATGAAWACA

Dataset #: 1
Motif ID: 33
Motif name: Motif 33
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 3
Number of overlap: 12
Similarity score: 0.625

Alignment:
TTTAATGTYTTTWA--
--ATAGGTTTAGYATA

Original motif Consensus sequence: TTTAATGTYTTTWA

Reverse complement motif Consensus sequence: TWAAAKACATTAA

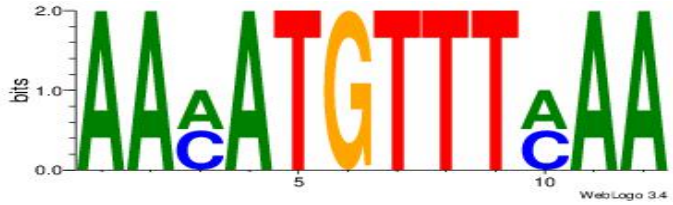


Dataset #:	1
Motif ID:	11
Motif name:	Motif 11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	11
Similarity score:	1.09091

Alignment:

```
---TTYAAACATYTT
TATKCTAAACCTAT-
```

Original motif Consensus sequence: AAMATGTTTMAA



Reverse complement motif Consensus sequence: TTYAAACATYTT

Dataset #:	4
Motif ID:	80

Motif name:	taaacgatgcc
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	1.10227

Alignment:

```
---GGCATCGTTTA
ATAGGTTTAGYATA
```

Original motif Consensus sequence: TAAACGATGCC

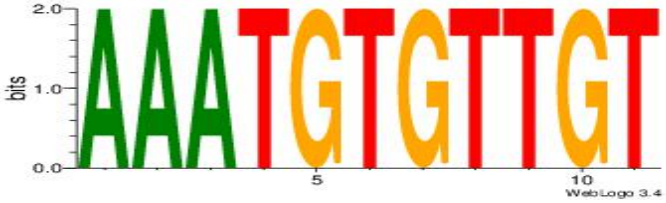
Reverse complement motif Consensus sequence: GGCATCGTTTA

Dataset #:	1
Motif ID:	12
Motif name:	Motif 12
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	1.10227

Alignment:
ACAACACATTT---
TATKCTAAACCTAT

Original motif Consensus sequence: ACAACACATTT

Reverse complement motif Consensus sequence: AAATGTGTTGT



Dataset #:	1
Motif ID:	18
Motif name:	Motif 18
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	1.125

Alignment:
---GCTGGACTTTG
TATKCTAAACCTAT

Original motif Consensus sequence: CAAAGTCCAGC

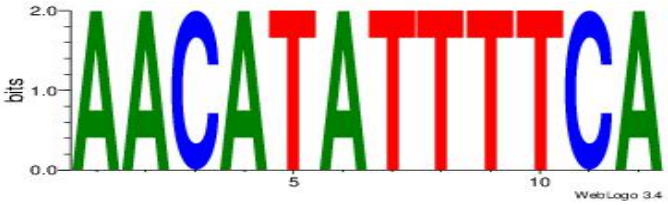
Reverse complement motif Consensus sequence: GCTGGACTTTG

Dataset #:	1
Motif ID:	9
Motif name:	Motif 9
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	11
Similarity score:	1.125

Alignment:

```
---TGAAAATATGTT
TATKCTAAACCTAT-
```

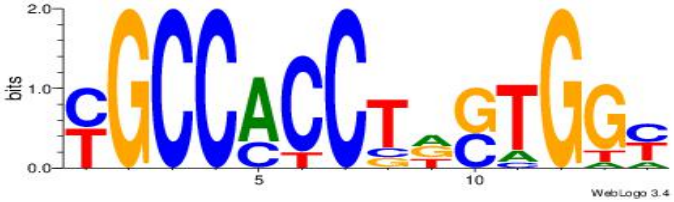
Original motif Consensus sequence: AACATATTTTCA



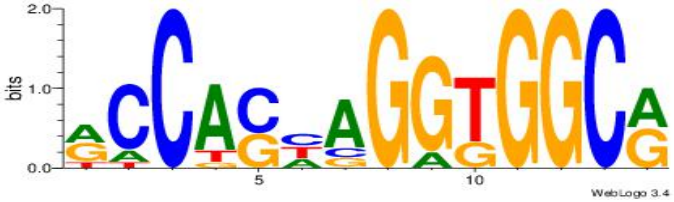
Reverse complement motif Consensus sequence: TGAAAATATGTT

Dataset #: 2 Motif ID: 47 Motif name: Motif 47

Original motif Consensus sequence: YGCCACCTDSTGGY



Reverse complement motif Consensus sequence: KCCASDAGGTGGC



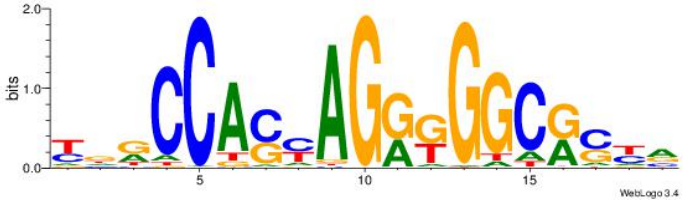
Best Matches for Motif ID 47 (Highest to Lowest)

Dataset #:	3
Motif ID:	66
Motif name:	CTCF
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	14
Similarity score:	0.0209936

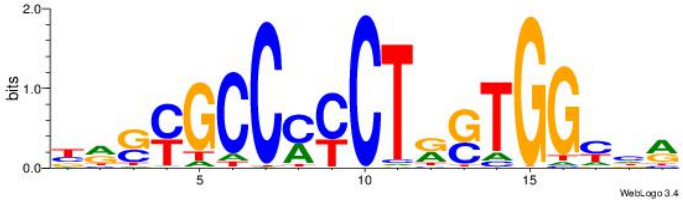
Alignment:

```
BMSMGCCYMCTKSTGGMHM
---YGCCACCTDSTGGY--
```

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM

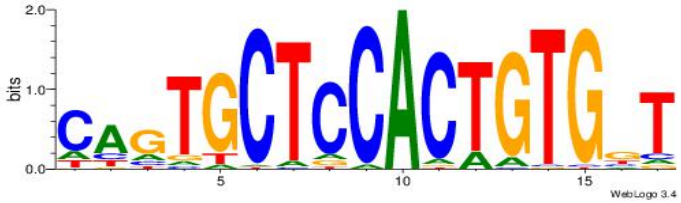


Dataset #:	4
Motif ID:	70
Motif name:	CagTGCTCCACTGTGgT
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	4
Number of overlap:	14
Similarity score:	0.0790816

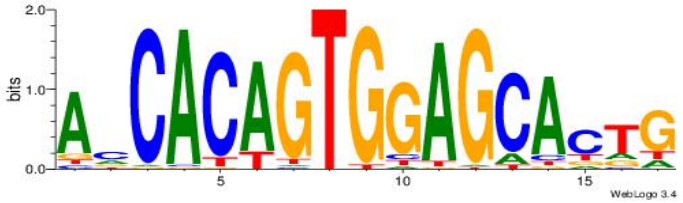
Alignment:

```
CAGTGCTCCACTGTGBT
---YGCCACCTDSTGGY
```

Original motif Consensus sequence: CAGTGCTCCACTGTGBT



Reverse complement motif Consensus sequence: ABCACAGTGGAGCACTG

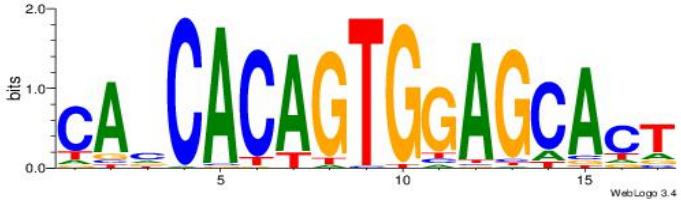


Dataset #:	4
Motif ID:	76
Motif name:	CAcCACAGTGGAGCAct
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2

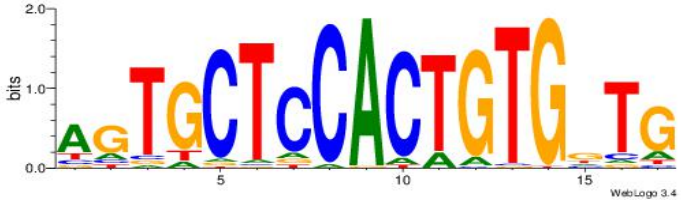
Number of overlap: 14
Similarity score: 0.0804767

Alignment:
AGTGCTCCACTGTGDTG
--YGCCACCTDSTGGY-

Original motif Consensus sequence: CAHCACAGTGGAGCACT



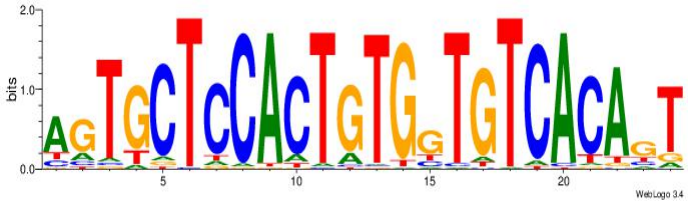
Reverse complement motif Consensus sequence: AGTGCTCCACTGTGDTG



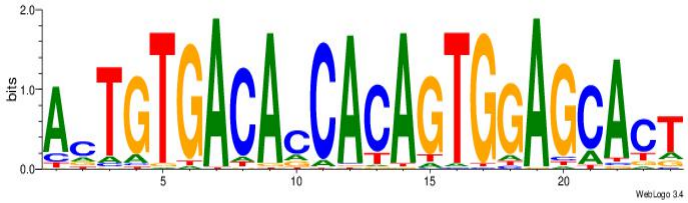
Dataset #: 4
Motif ID: 77
Motif name: AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 3
Number of overlap: 14
Similarity score: 0.0836896

Alignment:
AGTGCTCCACTGTGGTGTCACAGT
--YGCCACCTDSTGGY--------

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT

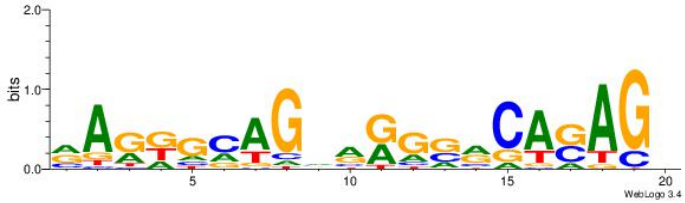


Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	4
Number of overlap:	14
Similarity score:	0.0913786

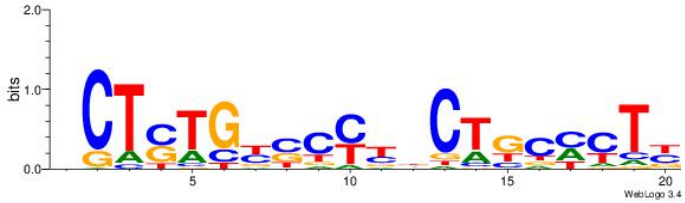
Alignment:

```
RAGKGMAGVRRGSRCASAGV
---KCCASDAGGTGGCK---
```

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK

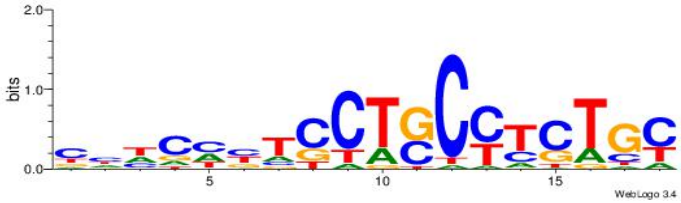


Dataset #:	5
Motif ID:	90
Motif name:	TFM2
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	6
Number of overlap:	13
Similarity score:	0.582451

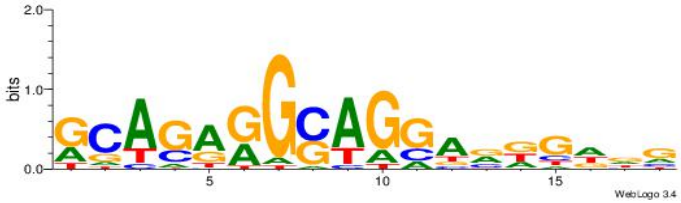
Alignment:

```
CHHCHBTCCTSCYTCTGC-
-----YGCCACCTDSTGGY
```

Original motif Consensus sequence: CHHCHBTCCTSCYTCTGC



Reverse complement motif Consensus sequence: GCAGAKGSAGGABDGHDG

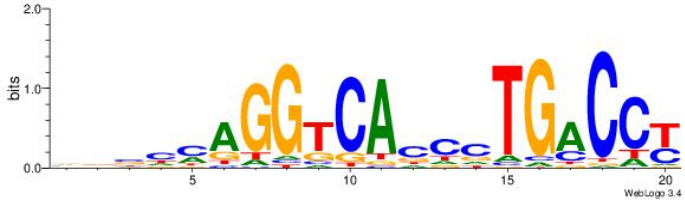


Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	8

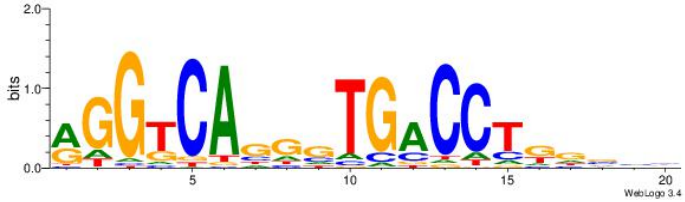
Number of overlap: 13
Similarity score: 0.590483

Alignment:
MGGTCAGGGTGACCTRDBHV-
-------YGCCACCTDSTGGY

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

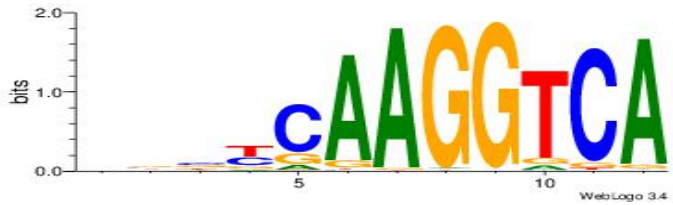


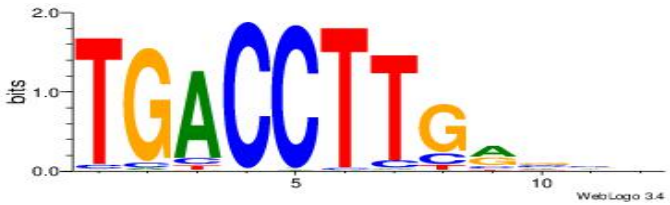
Dataset #: 3
Motif ID: 54
Motif name: Esrrb
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 1
Number of overlap: 12
Similarity score: 1.08988

Alignment:
VBBYCAAGGTCA--
KCCASDAGGTGGCK

Original motif Consensus sequence: VBBYCAAGGTCA

Reverse complement motif Consensus sequence: TGACCTTGMBBB



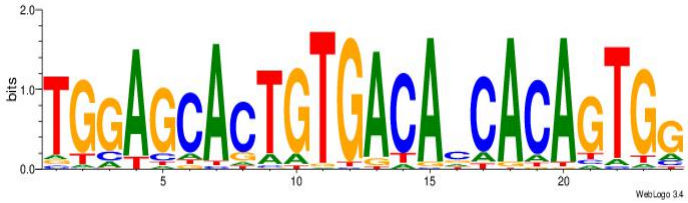


Dataset #:	4
Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	13
Number of overlap:	12
Similarity score:	1.09162

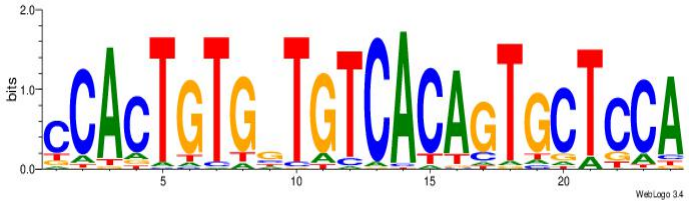
Alignment:

```
--CCACTGTGVTGTCACAGTGCTCCA
YGCCACCTDSTGGY------------
```

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA



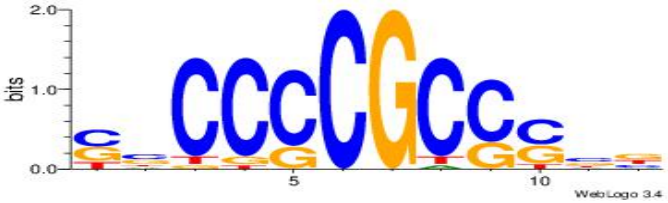
Dataset #: 4

Motif ID:	74
Motif name:	ssCCCCGCSssk
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	12
Similarity score:	1.09358

Alignment:

```
SBCCCCGCCSBB--
YGCCACCTDSTGGY
```

Original motif Consensus sequence: SBCCCCGCCSBB



Reverse complement motif Consensus sequence: BBSGGCGGGGBS

Dataset #: 2 Motif ID: 48 Motif name: Motif 48

Original motif Consensus sequence: GCARRGGSAGS

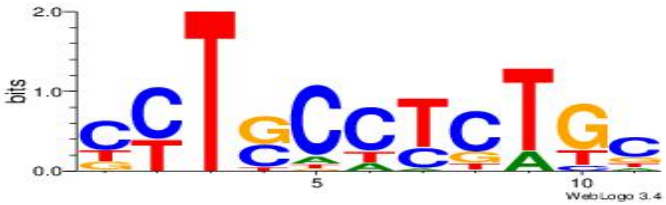
Reverse complement motif Consensus sequence: SCTSCCKMTGC

Best Matches for Motif ID 48 (Highest to Lowest)

Dataset #:	1
Motif ID:	1
Motif name:	Motif 1
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0

Alignment:
GCAGAGGSAKG
GCARRGGSAGS

Original motif Consensus sequence: CYTSCCTCTGC



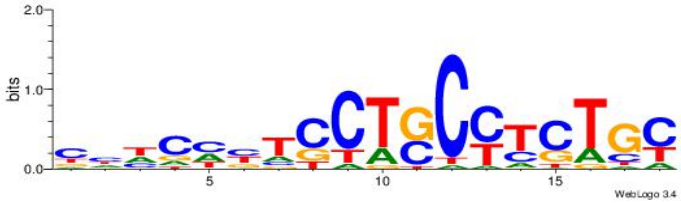
Reverse complement motif Consensus sequence: GCAGAGGSAKG

Dataset #:	5
Motif ID:	90
Motif name:	TFM2
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement

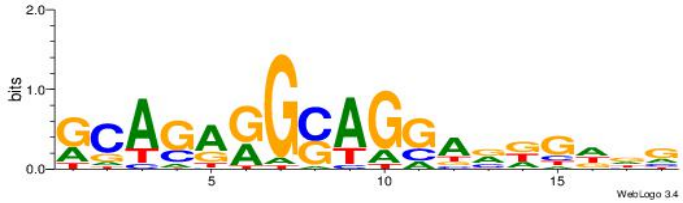
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.000952693

Alignment:
GCAGAKGSAGGABDGHDG
GCARRGGSAGS-------

Original motif Consensus sequence: CHHCHBTCCTSCYTCTGC



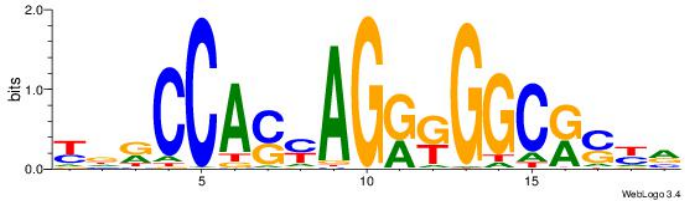
Reverse complement motif Consensus sequence:
GCAGAKGSAGGABDGHDG



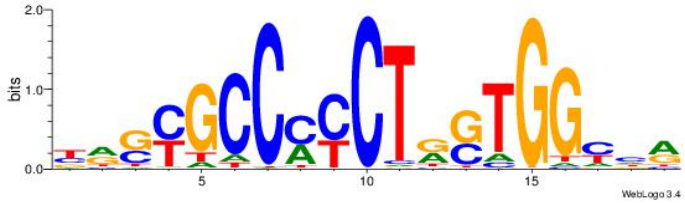
Dataset #:	3
Motif ID:	66
Motif name:	CTCF
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	11
Similarity score:	0.033658

Alignment:
YDRCCASYAGRKGGCRSYV
------GCARRGGSAGS--

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM

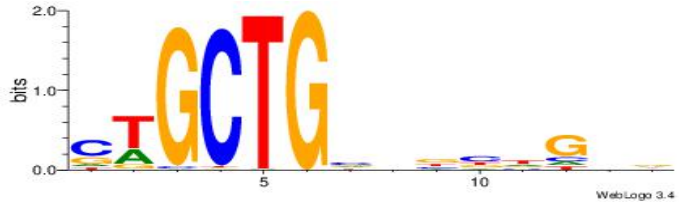


Dataset #:	5
Motif ID:	88
Motif name:	TFF11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	11
Similarity score:	0.0410341

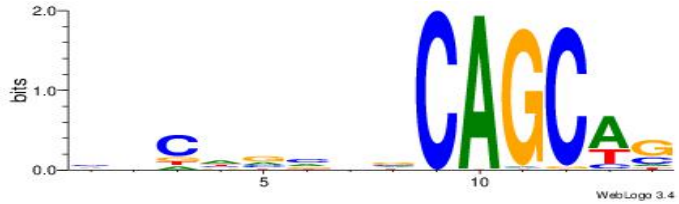
Alignment:

```
CTGCTGBDBBDGBD
--SCTSCCKMTGC-
```

Original motif Consensus sequence: CTGCTGBDBBDGBD



Reverse complement motif Consensus sequence: HVCDBBDBCAGCA

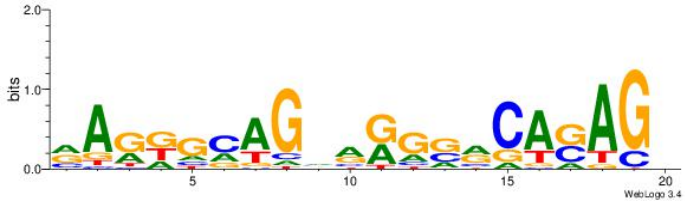


Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	6
Number of overlap:	11
Similarity score:	0.0422459

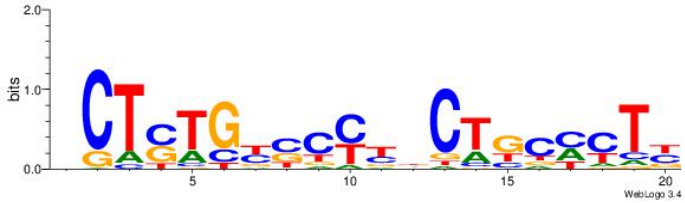
Alignment:

```
RAGKGMAGVRRGSRCASAGV
----GCARRGGSAGS-----
```

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK

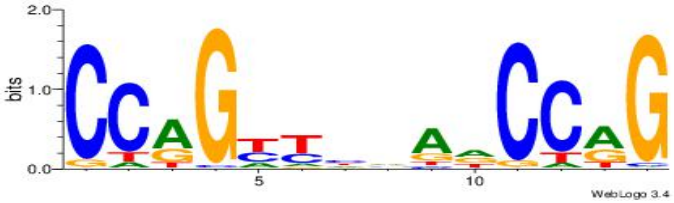


Dataset #:	3
Motif ID:	65
Motif name:	Tcfcp2l1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1

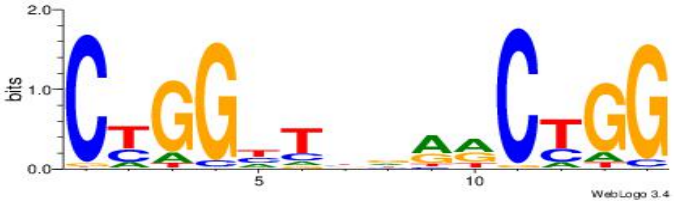
Number of overlap: 11
Similarity score: 0.0533531

Alignment:
CCAGYYHVADCCRG
SCTSCCKMTGC---

Original motif Consensus sequence: CCAGYYHVADCCRG



Reverse complement motif Consensus sequence: CKGGDTBDMMCT

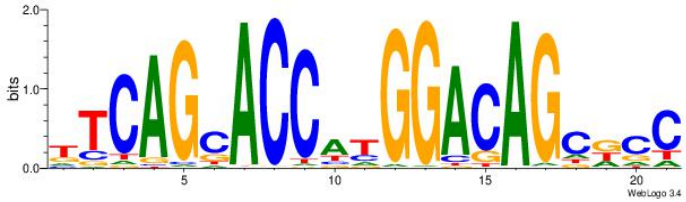


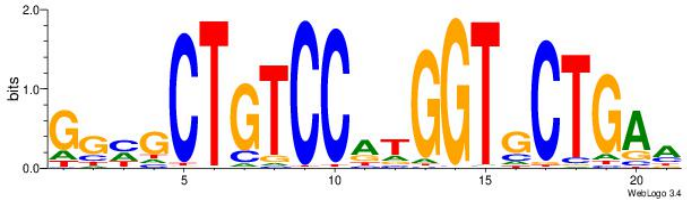
Dataset #: 3
Motif ID: 57
Motif name: REST
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 4
Number of overlap: 11
Similarity score: 0.0578944

Alignment:
GGYGCTGTCCATGGTGCTGAA
---SCTSCCKMTGC-------

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC

Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA



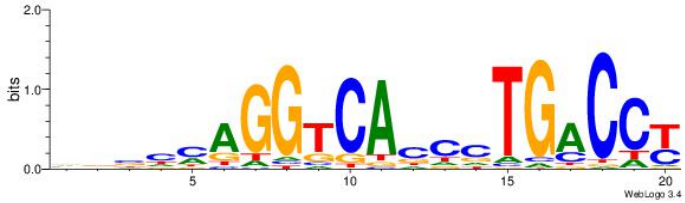


Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	11
Similarity score:	0.0620615

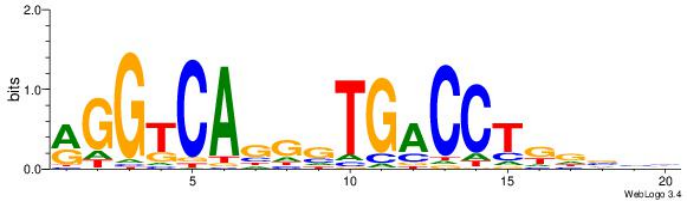
Alignment:

```
VDBHMAGGTCACCCTGACCY
--GCARRGGSAGS-------
```

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV



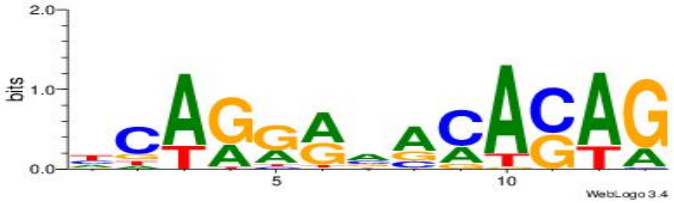
Dataset #:	1

Motif ID:	3
Motif name:	Motif 3
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.0627554

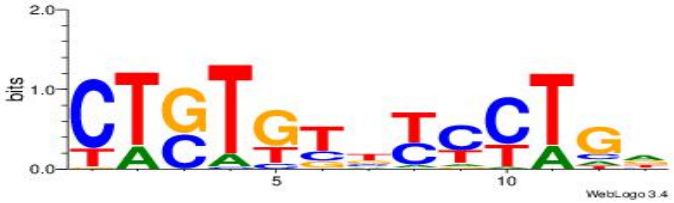
Alignment:

```
HCAGRRVACASAG
GCARRGGSAGS--
```

Original motif Consensus sequence: HCAGRRVACASAG



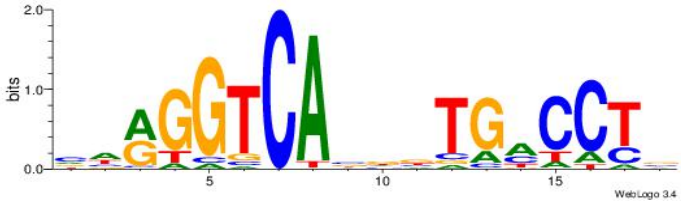
Reverse complement motif Consensus sequence: CTSTGTBKMCTGH



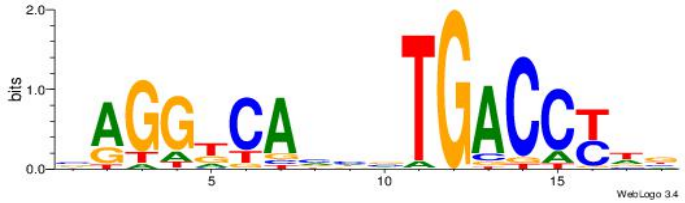
Dataset #:	3
Motif ID:	59
Motif name:	ESR2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	5
Number of overlap:	11
Similarity score:	0.0646979

Alignment:
VHRGGTCABDBTGMCCTB
---SCTSCCKMTGC----

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB



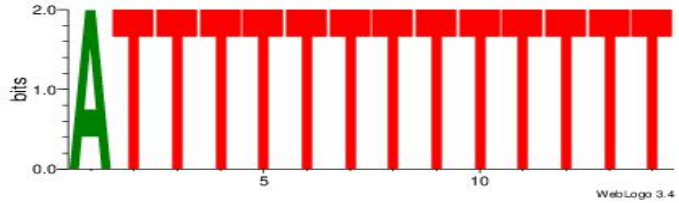
Reverse complement motif Consensus sequence: BAGGYCABHBTGACCKHV



Dataset #: 2 Motif ID: 49 Motif name: Motif 49

Original motif Consensus sequence: AAAAAAAAAAAAAT

Reverse complement motif Consensus sequence: ATTTTTTTTTTTTT



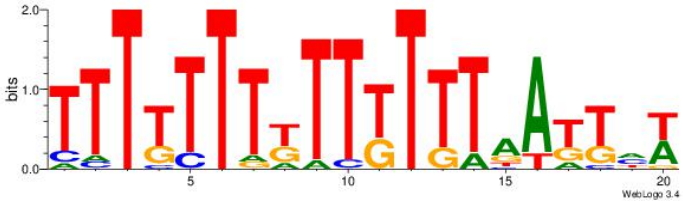
Best Matches for Motif ID 49 (Highest to Lowest)

Dataset #:	5
Motif ID:	94
Motif name:	TFM13
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward

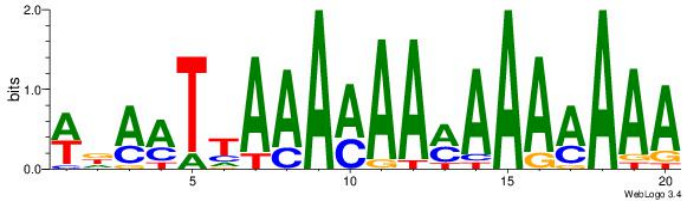
Position number: 1
Number of overlap: 14
Similarity score: 0.0548469

Alignment:
WHAATTAAARAARAAAAAAA
------AAAAAAAAAAAAAT

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW



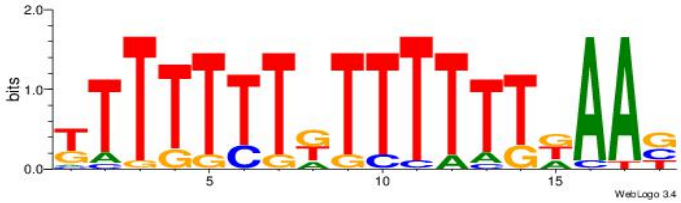
Reverse complement motif Consensus sequence: WHAATTAAARAARAAAAAAA



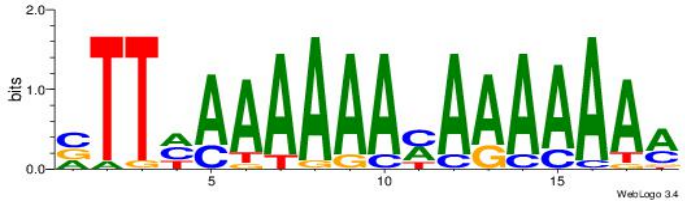
Dataset #: 5
Motif ID: 91
Motif name: TFM3
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 1
Number of overlap: 14
Similarity score: 0.0602679

Alignment:
KTTTTTTKTTTTTTDAAB
ATTTTTTTTTTTTT----

Original motif Consensus sequence: KTTTTTTKTTTTTTDAAB



Reverse complement motif Consensus sequence: BTTHAAAAAAYAAAAAAR



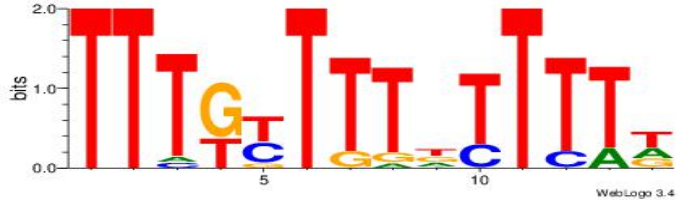
Dataset #:	1
Motif ID:	4
Motif name:	Motif 4
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	14
Similarity score:	0.0767857

Alignment:

```
HAAAAHAAARMAAA
AAAAAAAAAAAAAT
```

Original motif Consensus sequence: HAAAAHAAARMAAA

Reverse complement motif Consensus sequence: TTTRKTTTHTTTTH

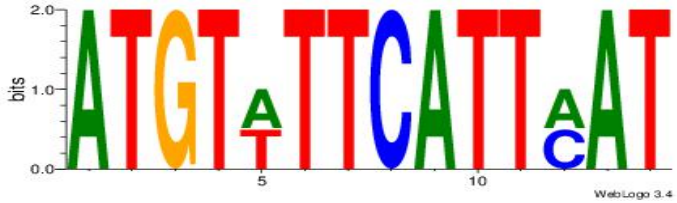


Dataset #:	1
Motif ID:	23
Motif name:	Motif 23
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	14
Similarity score:	0.0982143

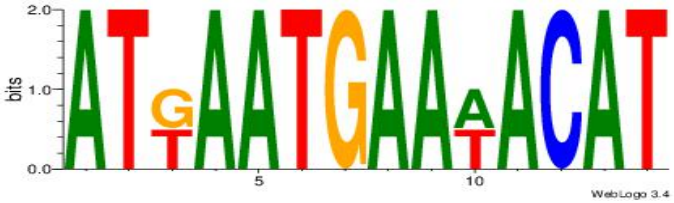
Alignment:

```
ATYAATGAAWACAT
AAAAAAAAAAAAAT
```

Original motif Consensus sequence: ATGTWTTCATTMAT



Reverse complement motif Consensus sequence: ATYAATGAAWACA

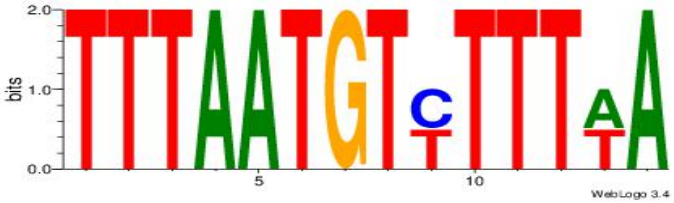


Dataset #:	1
Motif ID:	33
Motif name:	Motif 33
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	14

Similarity score: 0.107143

Alignment:
TWAAAKACATTAAA
AAAAAAAAAAAAAT

Original motif Consensus sequence: TTTAATGTYTTTWA



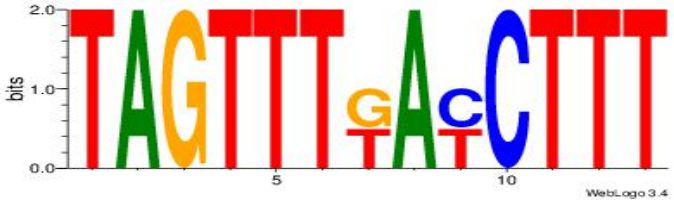
Reverse complement motif Consensus sequence: TWAAAKACATTAA

Dataset #: 1
Motif ID: 15
Motif name: Motif 15
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 1
Number of overlap: 13
Similarity score: 0.596154

Alignment:
-TAGTTTYAKCTTT
ATTTTTTTTTTTT

Original motif Consensus sequence: AAAGRTMAAACTA

Reverse complement motif Consensus sequence: TAGTTTYAKCTTT

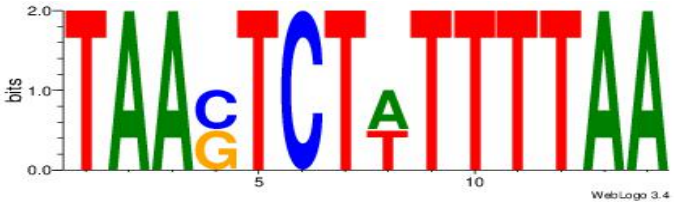


Dataset #:	1
Motif ID:	45
Motif name:	Motif 45
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	13
Similarity score:	0.605769

Alignment:

```
TTAAAAWAGASTTA-
-AAAAAAAAAAAAAT
```

Original motif Consensus sequence: TAASTCTWTTTTAA



Reverse complement motif Consensus sequence: TTAAAAWAGASTT

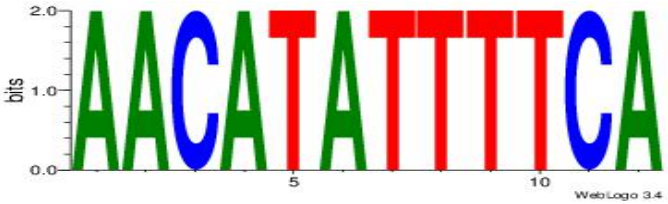
Dataset #:	1
Motif ID:	9

Motif name:	Motif 9
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	12
Similarity score:	1.125

Alignment:

```
TGAAAATATGTT--
AAAAAAAAAAAAAT
```

Original motif Consensus sequence: AACATATTTTCA

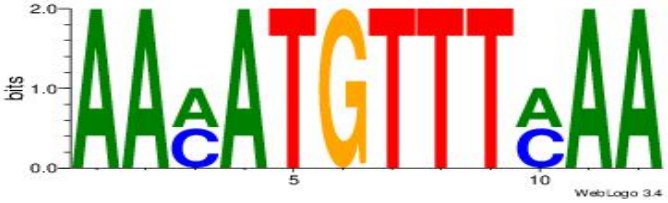


Reverse complement motif Consensus sequence: TGAAAATATGTT

Dataset #:	1
Motif ID:	11
Motif name:	Motif 11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	12
Similarity score:	1.125

Alignment:
--TTYAAACATYTT
ATTTTTTTTTTTTT

Original motif Consensus sequence: AAMATGTTTMAA



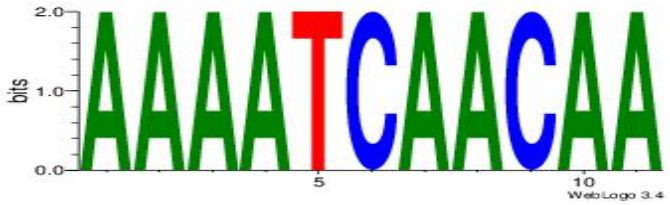
Reverse complement motif Consensus sequence: TTYAAACATYTT

Dataset #:	1
Motif ID:	31
Motif name:	Motif 31
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	1.56818

Alignment:
TTGTTGATTTT---
ATTTTTTTTTTTTT

Original motif Consensus sequence: TTGTTGATTTT

Reverse complement motif Consensus sequence: AAAATCAACAA



Dataset #: 2 Motif ID: 50 Motif name: Motif 50

Original motif Consensus sequence: GGAAM

Reverse complement motif Consensus sequence: YTTCC

Best Matches for Motif ID 50 (Highest to Lowest)

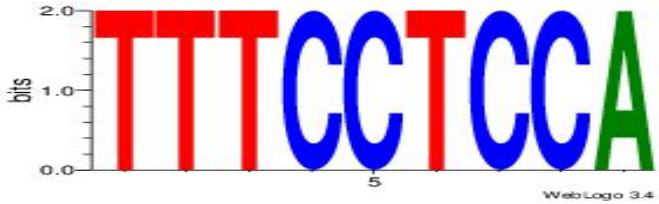
Dataset #:	1
Motif ID:	41
Motif name:	Motif 41
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	5
Number of overlap:	5
Similarity score:	0.01875

Alignment:

```
TTTCCTCCA
YTTCC----
```

Original motif Consensus sequence: TGGAGGAAA

Reverse complement motif Consensus sequence: TTTCCTCCA

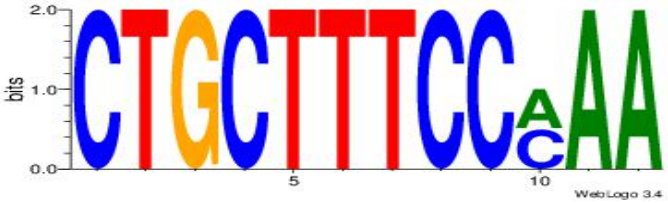


Dataset #:	1
Motif ID:	21
Motif name:	Motif 21
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	5
Number of overlap:	5
Similarity score:	0.01875

Alignment:

```
CTGCTTTCCMAA
---YTTCC----
```

Original motif Consensus sequence: CTGCTTTCCMAA



Reverse complement motif Consensus sequence: TTYGGAAAGCAG

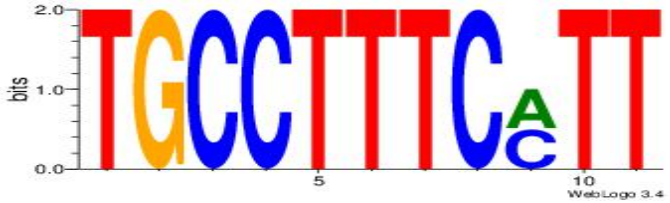
Dataset #:	1
Motif ID:	43
Motif name:	Motif 43
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	5
Similarity score:	0.04375

Alignment:

```
TGCCTTTCYTT
----YTTCC--
```

Original motif Consensus sequence: AAKGAAAGGCA

Reverse complement motif Consensus sequence: TGCCTTTCYTT



Dataset #:	1
Motif ID:	44
Motif name:	Motif 44
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	5

Similarity score: 0.05625

Alignment:
TTCTTYCATT
--YTTCC---

Original motif Consensus sequence: AATGKAAGAA

Reverse complement motif Consensus sequence: TTCTTYCATT

Dataset #: 1
Motif ID: 8
Motif name: Motif 8
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 1
Number of overlap: 5
Similarity score: 0.06875

Alignment:
AAGSATTTTCA
------YTTCC

Original motif Consensus sequence: TGAAAATSCTT

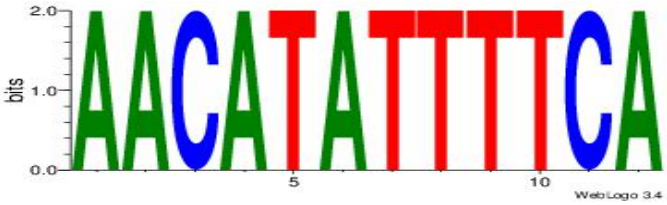
Reverse complement motif Consensus sequence: AAGSATTTTCA

Dataset #:	1
Motif ID:	9
Motif name:	Motif 9
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	5
Similarity score:	0.06875

Alignment:

```
TGAAAATATGTT
-------GGAAM
```

Original motif Consensus sequence: AACATATTTTCA



Reverse complement motif Consensus sequence: TGAAAATATGTT

Dataset #:	1
Motif ID:	19

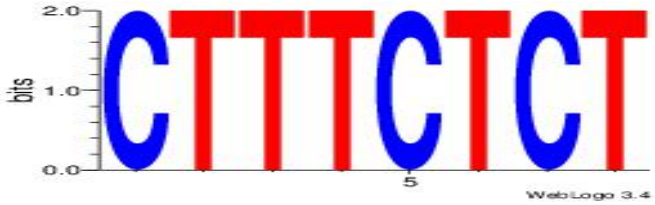
Motif name:	Motif 19
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	5
Similarity score:	0.06875

Alignment:

```
CTTTCTCT
-YTTCC--
```

Original motif Consensus sequence: AGAGAAAG

Reverse complement motif Consensus sequence: CTTTCTCT

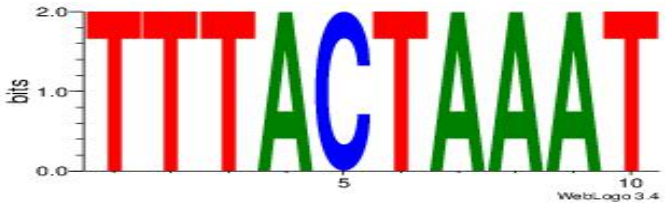


Dataset #:	1
Motif ID:	28
Motif name:	Motif 28
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	5
Similarity score:	0.06875

Alignment:
TTTACTAAAT
YTTCC-----

Original motif Consensus sequence: ATTTAGTAAA

Reverse complement motif Consensus sequence: TTTACTAAAT

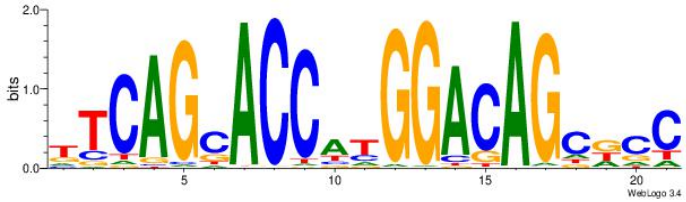


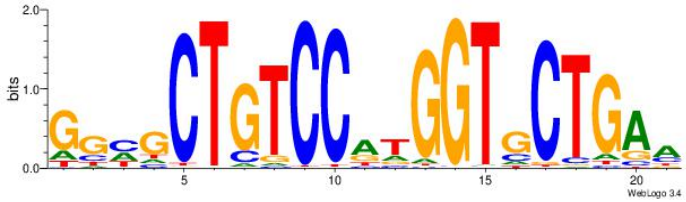
Dataset #:	3
Motif ID:	57
Motif name:	REST
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	12
Number of overlap:	5
Similarity score:	0.0747947

Alignment:
GGYGCTGTCCATGGTGCTGAA
-----YTTCC-----

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC

Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA



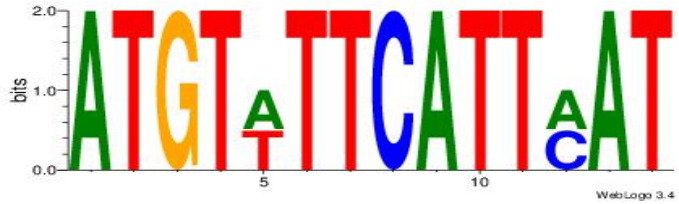


Dataset #:	1
Motif ID:	23
Motif name:	Motif 23
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	6
Number of overlap:	5
Similarity score:	0.075

Alignment:

```
ATYAATGAAWACAT
----GGAAM-----
```

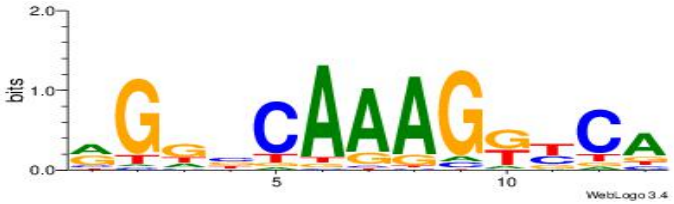
Original motif Consensus sequence: ATGTWTTCATTMAT



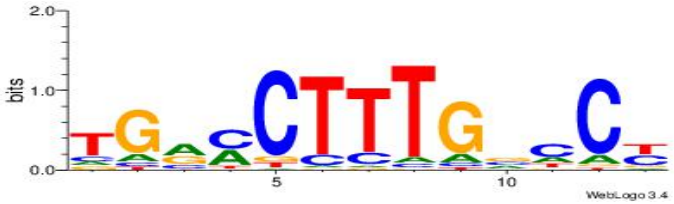
Reverse complement motif Consensus sequence: ATYAATGAAWACA

Dataset #: 3 Motif ID: 51 Motif name: HNF4A

Original motif Consensus sequence: RGGBCAAAGKYCA



Reverse complement motif Consensus sequence: TGMYCTTTGBCCK



Best Matches for Motif ID 51 (Highest to Lowest)

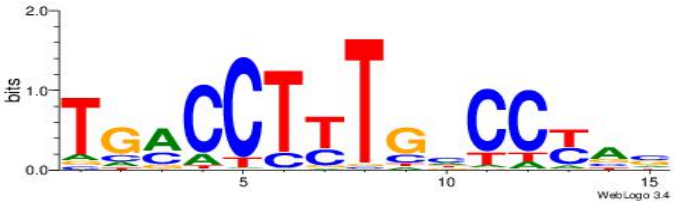
Dataset #:	3
Motif ID:	64
Motif name:	PPARGRXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	13
Similarity score:	0

Alignment:

```
BTRGGDCARAGGKCA
--RGGBCAAAGKYCA
```

Original motif Consensus sequence: BTRGGDCARAGGKCA

Reverse complement motif Consensus sequence: TGRCCTKTGHCCK

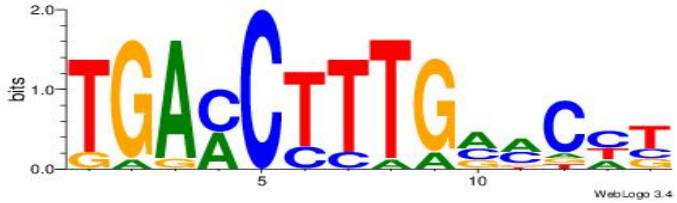


Dataset #:	3
Motif ID:	52
Motif name:	NR2F1
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	13
Similarity score:	0.0227413

Alignment:

```
AKGYYCAAAGRTCA
-RGGBCAAAGKYCA
```

Original motif Consensus sequence: TGAMCTTTGMMCYT



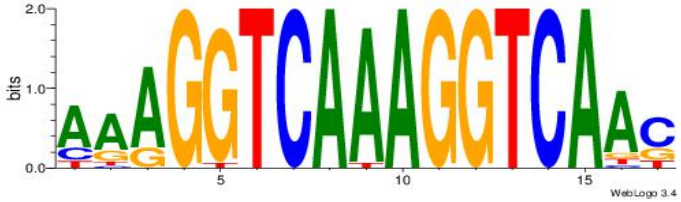
Reverse complement motif Consensus sequence: AKGYYCAAAGRTCA

Dataset #:	3
Motif ID:	60
Motif name:	NR1H2RXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	13

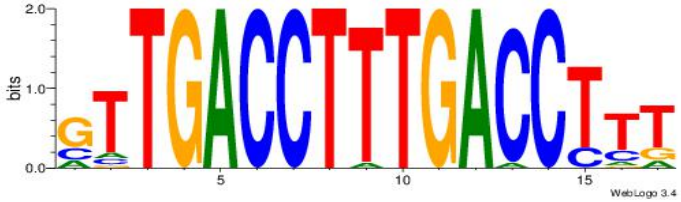
Similarity score: 0.0423023

Alignment:
AAAGGTCAAAGGTCAAC
--RGGBCAAAGKYCA--

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC



Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT

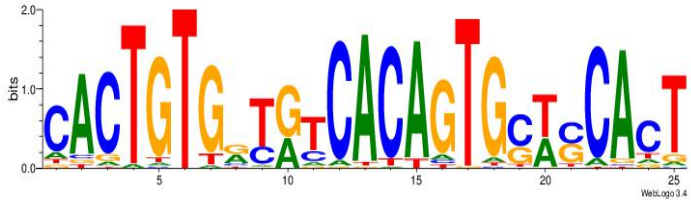


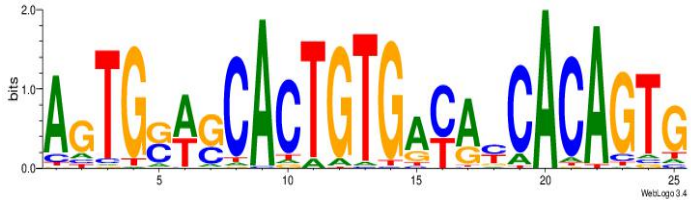
Dataset #: 4
Motif ID: 72
Motif name: CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 6
Number of overlap: 13
Similarity score: 0.0557654

Alignment:
CACTGTGRTRTCACAGTGSWSCACT
-------RGGBCAAAGKYCA-----

Original motif Consensus sequence: CACTGTGRTRTCACAGTGSWSCACT

Reverse complement motif Consensus sequence: AGTGSWSCACTGTGAMAMCACAGTG

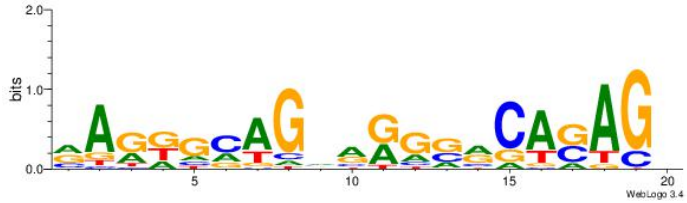




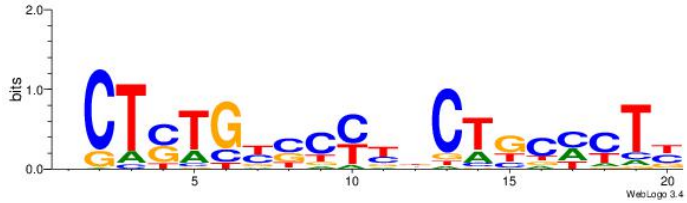
Dataset #: 5
Motif ID: 93
Motif name: TFM12
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 2
Number of overlap: 13
Similarity score: 0.0609093

Alignment:
VCTSTGKSCMKBCTRCYCTK
------TGMYCTTTGBCCK-

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



Reverse complement motif Consensus sequence:
VCTSTGKSCMKBCTRCYCTK



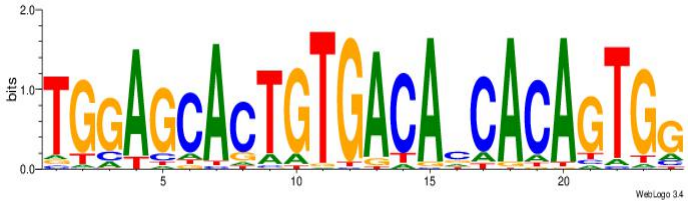
Dataset #: 4

Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	13
Similarity score:	0.0656443

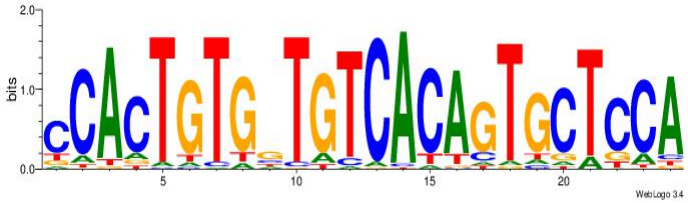
Alignment:

```
CCACTGTGVTGTCACAGTGCTCCA
--------RGGBCAAAGKYCA---
```

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

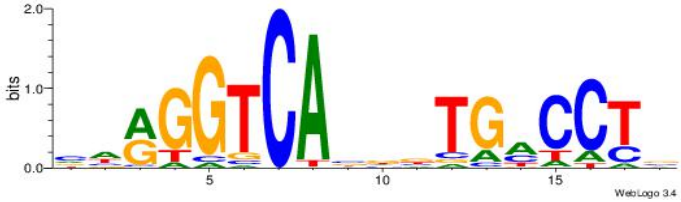


Dataset #:	3
Motif ID:	59
Motif name:	ESR2
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	13

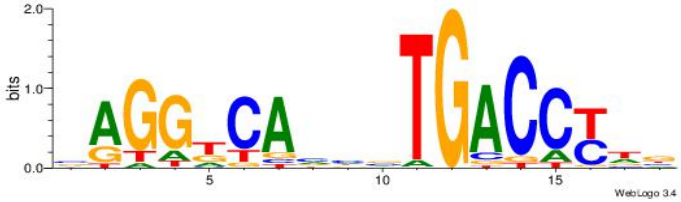
Similarity score: 0.0671615

Alignment:
VHRGGTCABDBTGMCCTB
--RGGBCAAAGKYCA---

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB



Reverse complement motif Consensus sequence:
BAGGYCABHBTGACCKHV

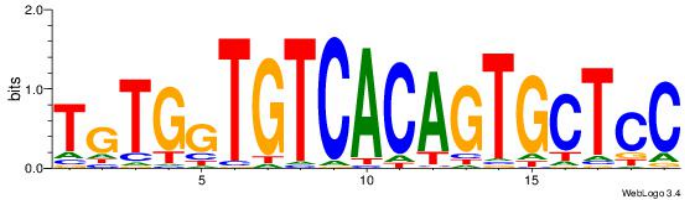


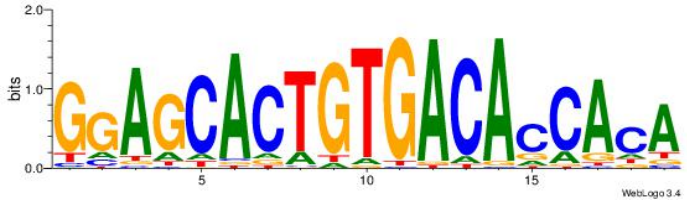
Dataset #: 4
Motif ID: 67
Motif name: TgTGgTGTCACAGTGCTCC
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 3
Number of overlap: 13
Similarity score: 0.0681338

Alignment:
TGTGGTGTCACAGTGCTCC
----RGGBCAAAGKYCA--

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC

Reverse complement motif Consensus sequence:
GGAGCACTGTGACACCACA

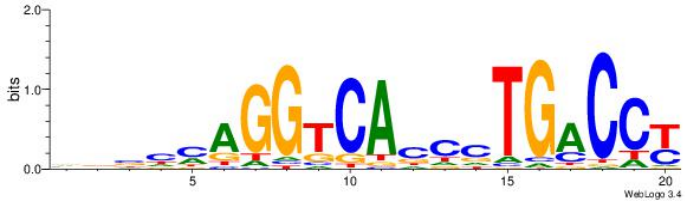




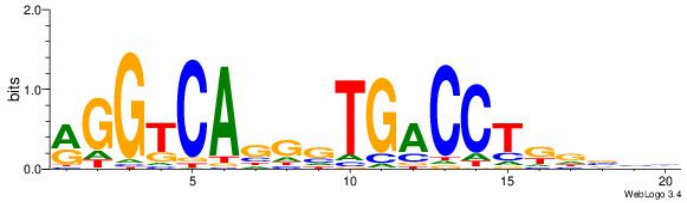
Dataset #: 3
Motif ID: 53
Motif name: ESR1
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 1
Number of overlap: 13
Similarity score: 0.0711137

Alignment:
MGGTCAGGGTGACCTRDBHV
RGGBCAAAGKYCA-------

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV



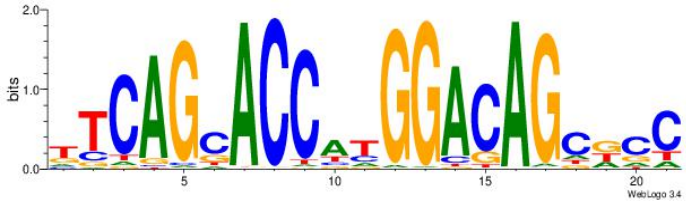
Dataset #: 3

Motif ID:	57
Motif name:	REST
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	13
Similarity score:	0.0741922

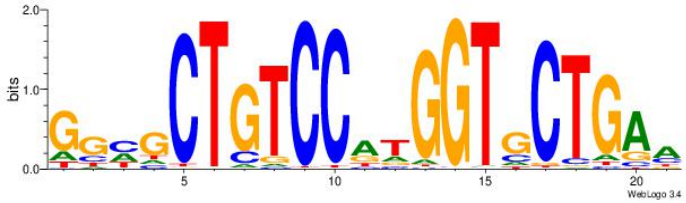
Alignment:

```
GGYGCTGTCCATGGTGCTGAA
-----TGMYCTTTGBCCK---
```

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC

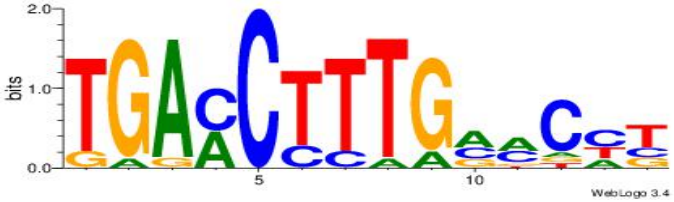


Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA



Dataset #: 3 Motif ID: 52 Motif name: NR2F1

Original motif Consensus sequence: TGAMCTTTGMMCYT



Reverse complement motif Consensus sequence: AKGYYCAAAGRTCA

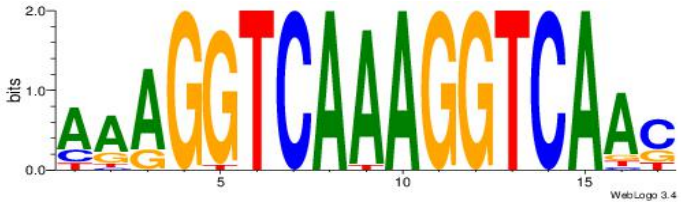
Best Matches for Motif ID 52 (Highest to Lowest)

Dataset #:	3
Motif ID:	60
Motif name:	NR1H2RXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	14
Similarity score:	0.0289973

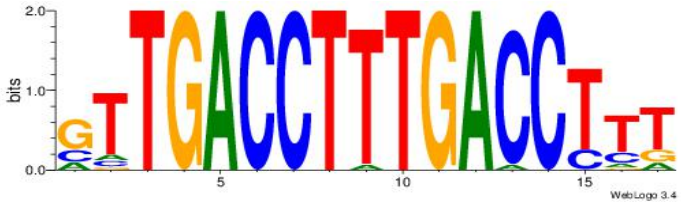
Alignment:

```
GTTGACCTTTGACCTTT
--TGAMCTTTGMMCYT-
```

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC



Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT



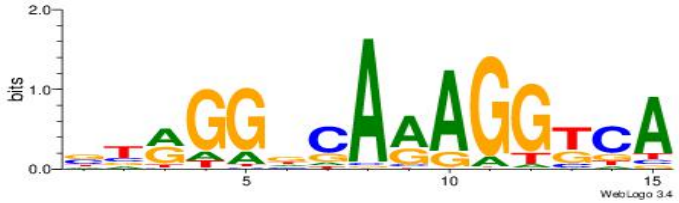
Dataset #:	3
Motif ID:	64
Motif name:	PPARGRXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement

Direction:	Backward
Position number:	2
Number of overlap:	14
Similarity score:	0.0393667

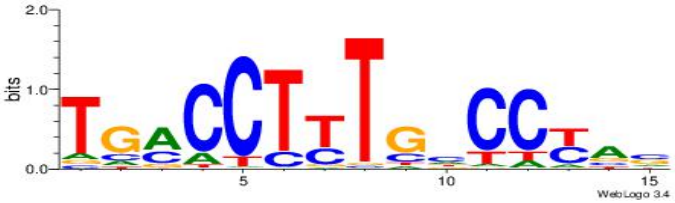
Alignment:

```
TGRCCTKTGHCCKAB
TGAMCTTTGMMCYT-
```

Original motif Consensus sequence: BTRGGDCARAGGKCA



Reverse complement motif Consensus sequence: TGRCCTKTGHCCK

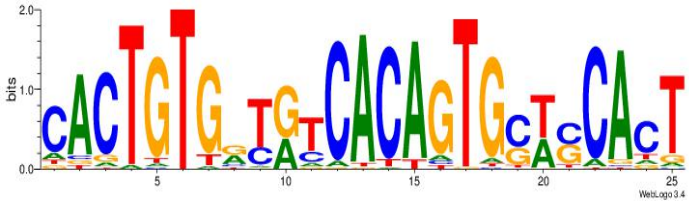


Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	7
Number of overlap:	14
Similarity score:	0.0713032

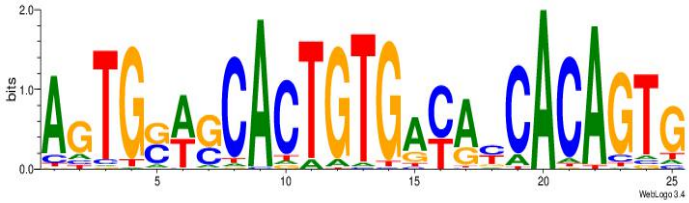
Alignment:

```
AGTGSWSCACTGTGAMAMCACAGTG
-----TGAMCTTTGMMCYT------
```

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



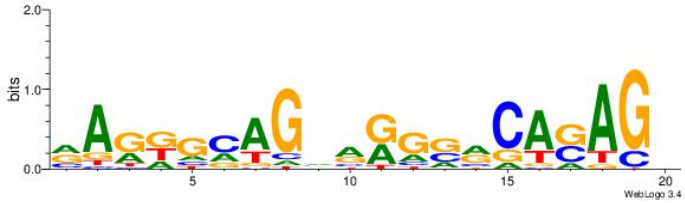
Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG



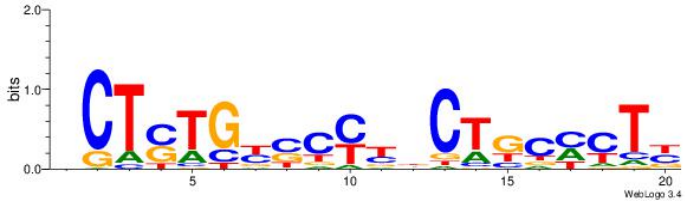
Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	14
Similarity score:	0.0742967

Alignment:
RAGKGMAGVRRGSRCASAGV
--AKGYYCAAAGRTCA----

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



Reverse complement motif Consensus sequence:
VCTSTGKSCMKBCTRCYCTK

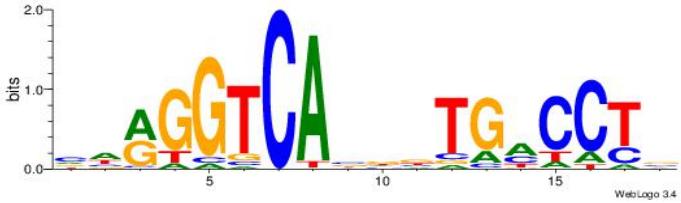


Dataset #:	3
Motif ID:	59
Motif name:	ESR2
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	14
Similarity score:	0.0825859

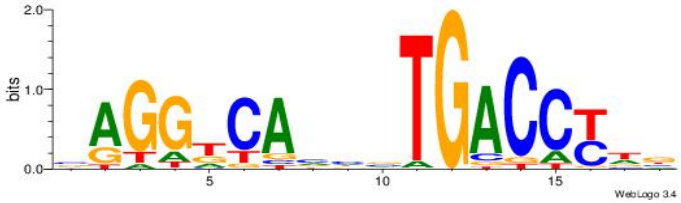
Alignment:

```
BAGGYCABHBTGACCKHV
---TGAMCTTTGMMCYT-
```

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB



Reverse complement motif Consensus sequence: BAGGYCABHBTGACCKHV

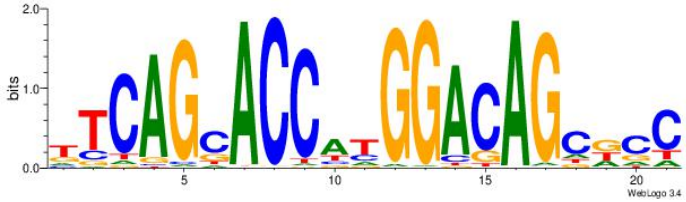


Dataset #:	3
Motif ID:	57
Motif name:	REST
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	6

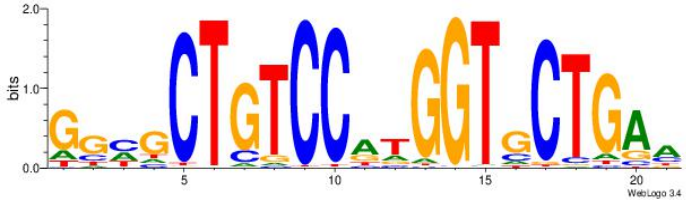
Number of overlap: 14
Similarity score: 0.0833345

Alignment:
TTCAGCACCATGGACAGCKCC
--AKGYYCAAAGRTCA-----

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



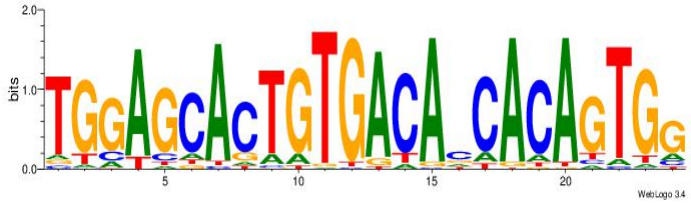
Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA



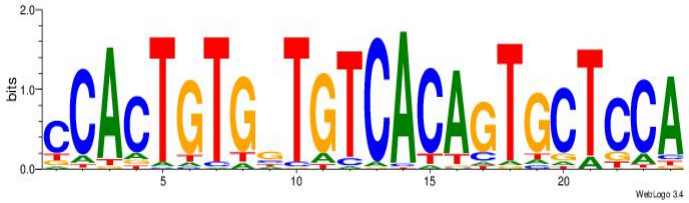
Dataset #: 4
Motif ID: 73
Motif name: TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 8
Number of overlap: 14
Similarity score: 0.0852669

Alignment:
TGGAGCACTGTGACAVCACAGTGG
---TGAMCTTTGMMCYT-------

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

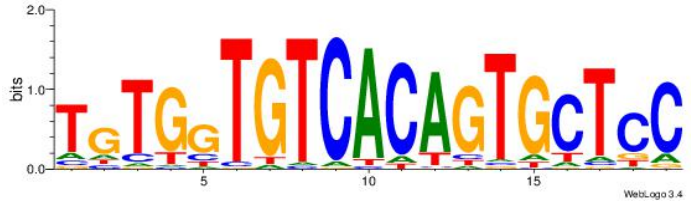


Dataset #:	4
Motif ID:	67
Motif name:	TgTGgTGTCACAGTGCTCC
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	14
Similarity score:	0.0855082

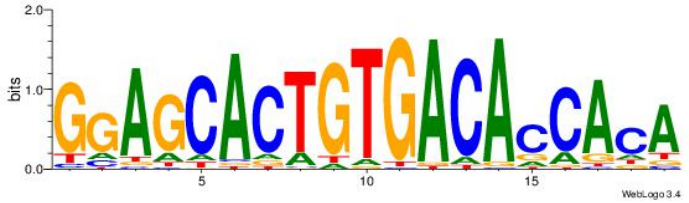
Alignment:

```
GGAGCACTGTGACACCACA
--TGAMCTTTGMMCYT---
```

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA

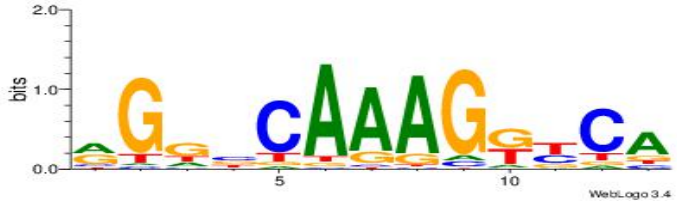


Dataset #:	3
Motif ID:	51
Motif name:	HNF4A
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	13
Similarity score:	0.525587

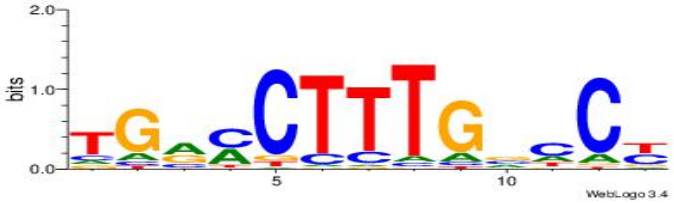
Alignment:

```
-TGMYCTTTGBCCK
TGAMCTTTGMMCYT
```

Original motif Consensus sequence: RGGBCAAAGKYCA



Reverse complement motif Consensus sequence: TGMYCTTTGBCCK

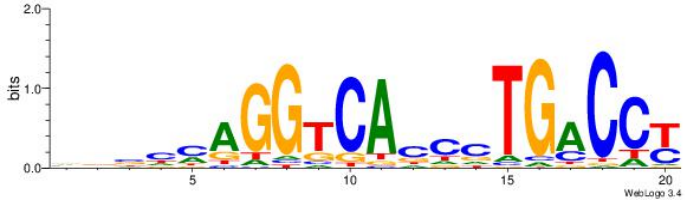


Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	8
Number of overlap:	13

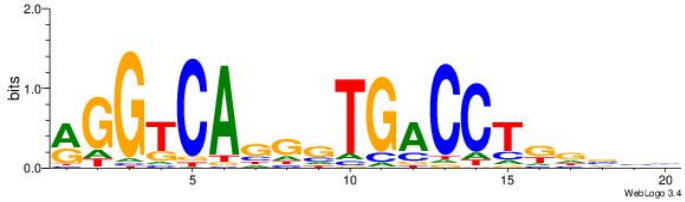
Similarity score: 0.581407

Alignment:
VDBHMAGGTCACCCTGACCY-
-------TGAMCTTTGMMCYT

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY

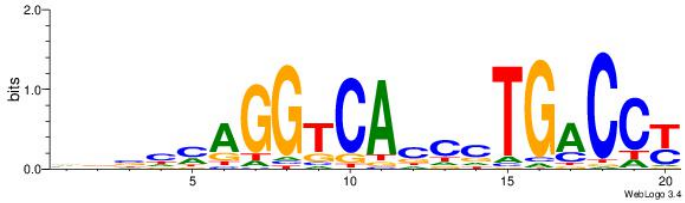


Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

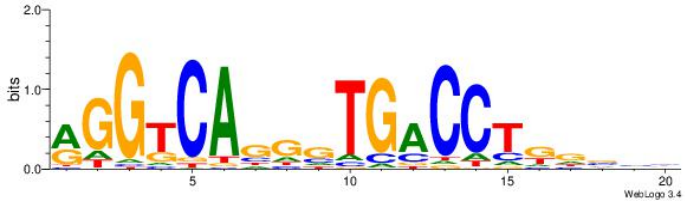


Dataset #: 3 Motif ID: 53 Motif name: ESR1

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV



Best Matches for Motif ID 53 (Highest to Lowest)

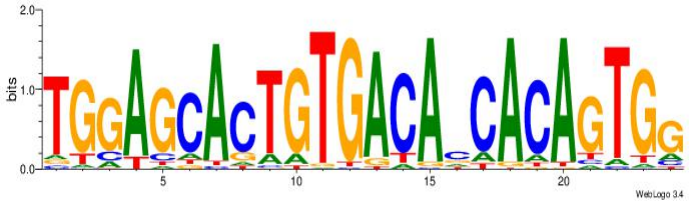
Dataset #:	4
Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Original Motif

Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	20
Similarity score:	0.0722586

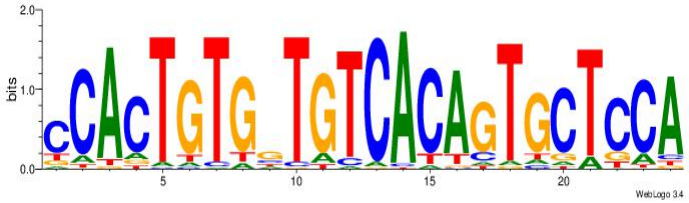
Alignment:

```
CCACTGTGVTGTCACAGTGCTCCA
---VDBHMAGGTCACCCTGACCY-
```

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

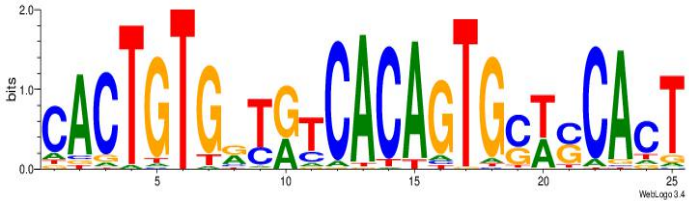


Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	20
Similarity score:	0.0818971

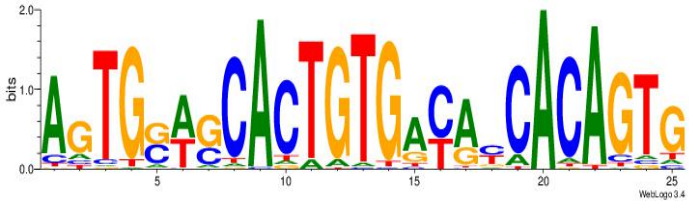
Alignment:

CACTGTGRTRTCACAGTGSWSCACT
--VDBHMAGGTCACCCTGACCY---

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG

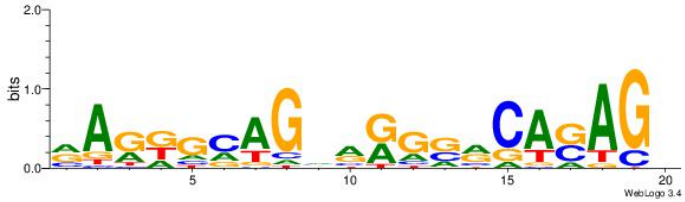


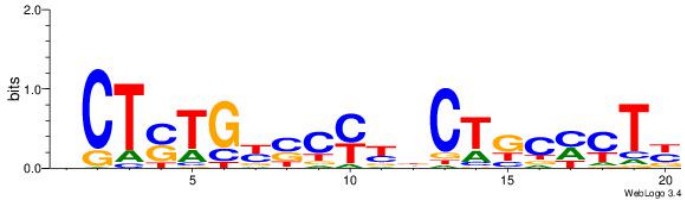
Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	19
Similarity score:	0.553964

Alignment:
-VCTSTGKSCMKBCTRCYCTK
VDBHMAGGTCACCCTGACCY-

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV

Reverse complement motif Consensus sequence:
VCTSTGKSCMKBCTRCYCTK

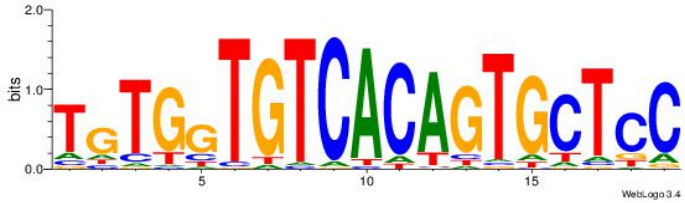




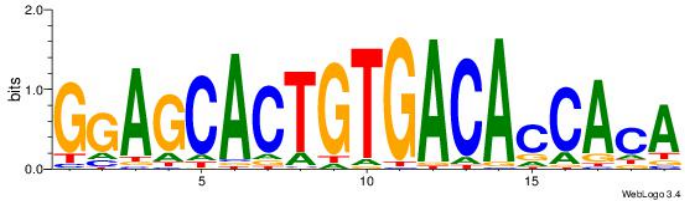
Dataset #: 4
Motif ID: 67
Motif name: TgTGgTGTCACAGTGCTCC
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 1
Number of overlap: 19
Similarity score: 0.566376

Alignment:
-TGTGGTGTCACAGTGCTCC
VDBHMAGGTCACCCTGACCY

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA

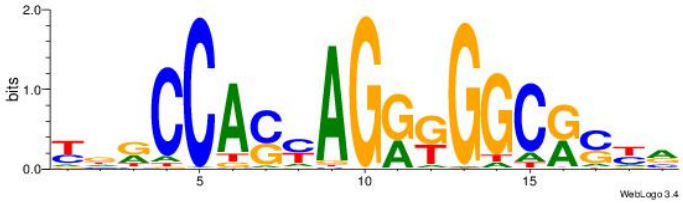


Dataset #: 3

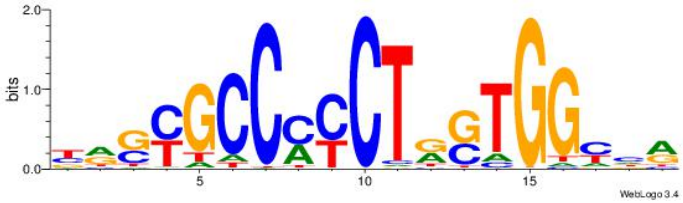
Motif ID:	66
Motif name:	CTCF
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	19
Similarity score:	0.579928

Alignment:
-BMSMGCCYMCTKSTGGMHM
VDBHMAGGTCACCCTGACCY

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM

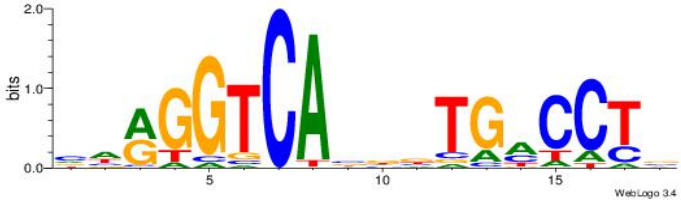


Dataset #:	3
Motif ID:	59
Motif name:	ESR2
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	17

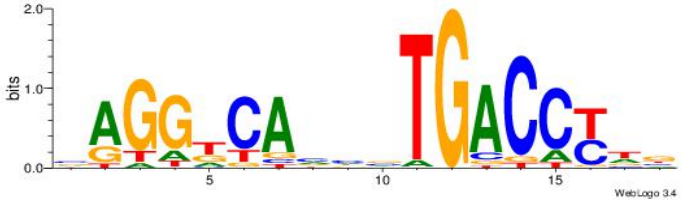
Similarity score: 1.50287

Alignment:
---VHRGGTCABDBTGMCCTB
VDBHMAGGTCACCCTGACCY-

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB



Reverse complement motif Consensus sequence: BAGGYCABHBTGACCKHV

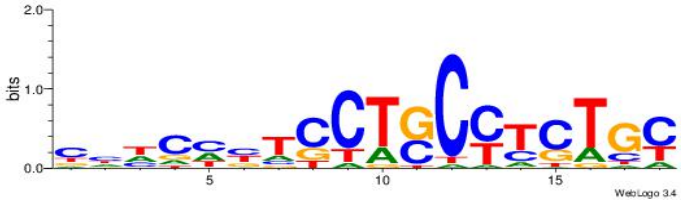


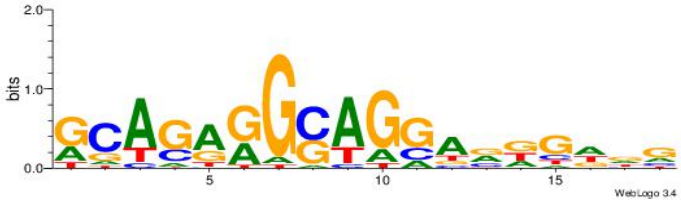
Dataset #: 5
Motif ID: 90
Motif name: TFM2
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 2
Number of overlap: 17
Similarity score: 1.55953

Alignment:
CHHCHBTCCTSCYTCTGC---
-VDBHMAGGTCACCCTGACCY

Original motif Consensus sequence: CHHCHBTCCTSCYTCTGC

Reverse complement motif Consensus sequence: GCAGAKGSAGGABDGHDG



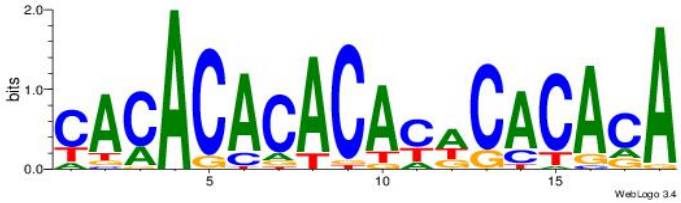


Dataset #:	5
Motif ID:	89
Motif name:	TFM1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	17
Similarity score:	1.5827

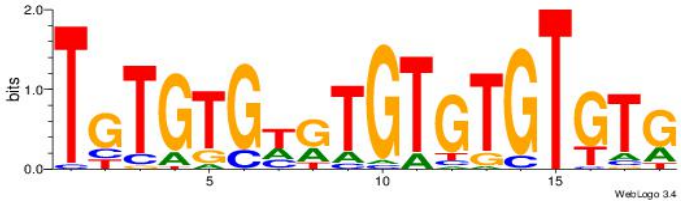
Alignment:

```
---CACACACACACWCACACA
VDBHMAGGTCACCCTGACCY-
```

Original motif Consensus sequence: CACACACACACWCACACA



Reverse complement motif Consensus sequence: TGTGTGWGTGTGTGTGTG



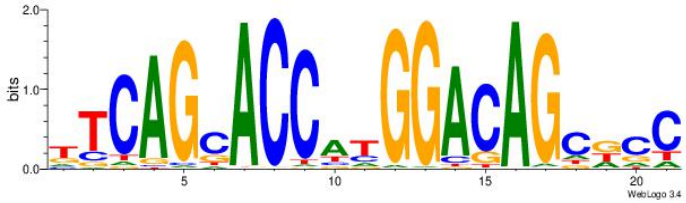
Dataset #:	3

Motif ID:	57
Motif name:	REST
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	6
Number of overlap:	16
Similarity score:	2.07409

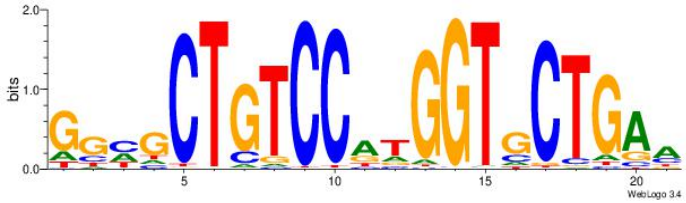
Alignment:

```
TTCAGCACCATGGACAGCKCC----
-----VDBHMAGGTCACCCTGACCY
```

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA

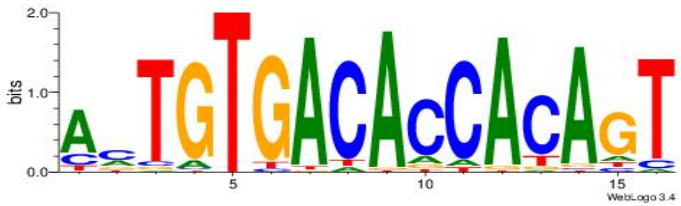


Dataset #:	4
Motif ID:	71
Motif name:	AmTGTGACACCACAGT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	15

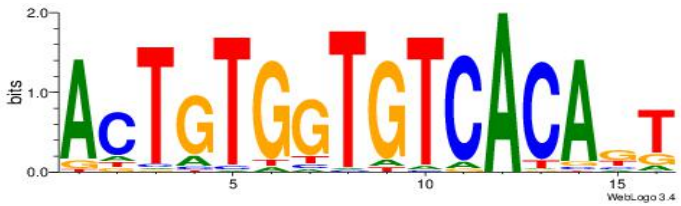
Similarity score: 2.57517

Alignment:
ACTGTGGTGTCACART-----
-VDBHMAGGTCACCCTGACCY

Original motif Consensus sequence: AMTGTGACACCACAGT

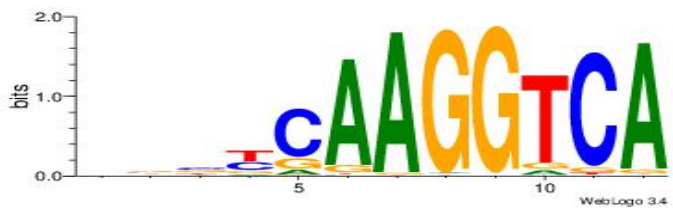


Reverse complement motif Consensus sequence: ACTGTGGTGTCACART

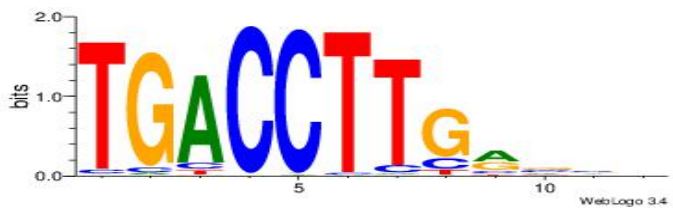


Dataset #: 3 Motif ID: 54 Motif name: Esrrb

Original motif Consensus sequence: VBBYCAAGGTCA



Reverse complement motif Consensus sequence: TGACCTTGMBBB



Best Matches for Motif ID 54 (Highest to Lowest)

Dataset #:	3
Motif ID:	52
Motif name:	NR2F1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif

Direction:	Backward
Position number:	1
Number of overlap:	12
Similarity score:	0.0613872

Alignment:

```
TGAMCTTTGMMCYT
--TGACCTTGMBBB
```

Original motif Consensus sequence: TGAMCTTTGMMCYT

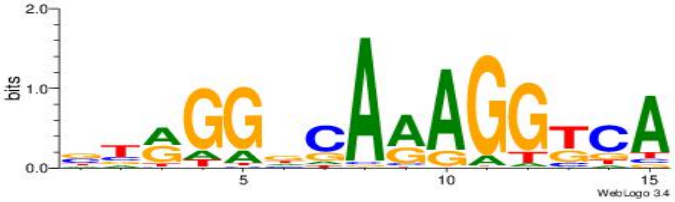
Reverse complement motif Consensus sequence: AKGYYCAAAGRTCA

Dataset #:	3
Motif ID:	64
Motif name:	PPARGRXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	4
Number of overlap:	12
Similarity score:	0.0641161

Alignment:

```
BTRGGDCARAGGKCA
---VBBYCAAGGTCA
```

Original motif Consensus sequence: BTRGGDCARAGGKCA



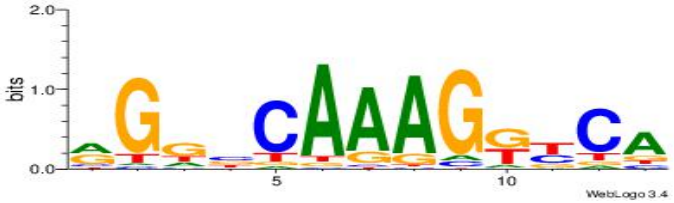
Reverse complement motif Consensus sequence: TGRCCTKTGHCCK

Dataset #:	3
Motif ID:	51
Motif name:	HNF4A
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	12
Similarity score:	0.0642069

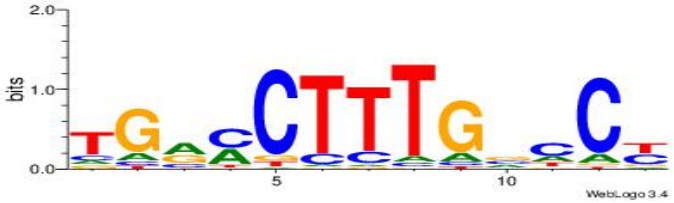
Alignment:

```
RGGBCAAAGKYCA
-VBBYCAAGGTCA
```

Original motif Consensus sequence: RGGBCAAAGKYCA



Reverse complement motif Consensus sequence: TGMYCTTTGBCCK

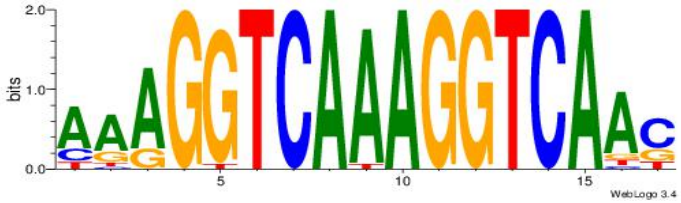


Dataset #:	3
Motif ID:	60
Motif name:	NR1H2RXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	12
Similarity score:	0.0678238

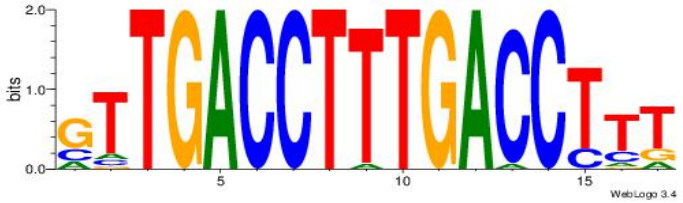
Alignment:

```
AAAGGTCAAAGGTCAAC
---VBBYCAAGGTCA--
```

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC



Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT

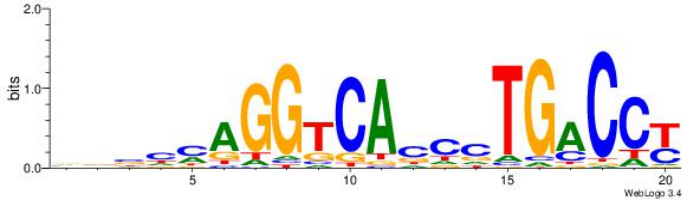


Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	9

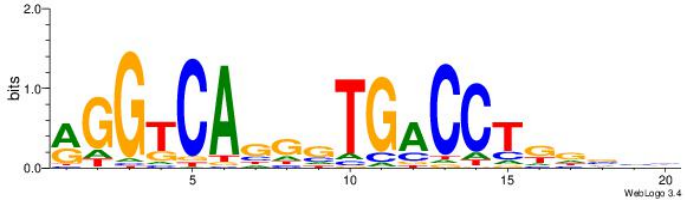
Number of overlap: 12
Similarity score: 0.0799744

Alignment:
VDBHMAGGTCACCCTGACCY
TGACCTTGMBBB--------

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



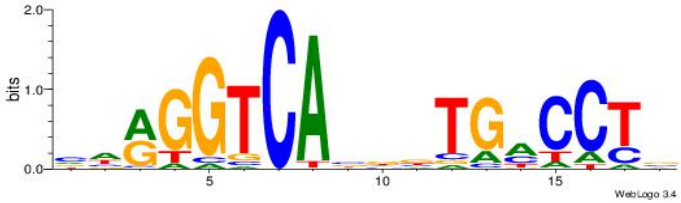
Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV



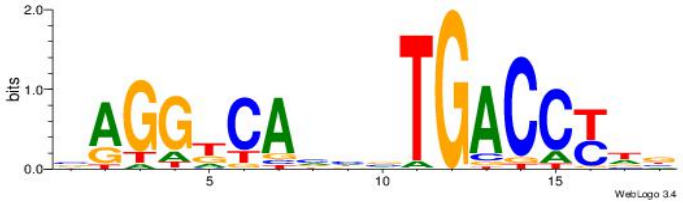
Dataset #: 3
Motif ID: 59
Motif name: ESR2
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 6
Number of overlap: 12
Similarity score: 0.0865873

Alignment:
VHRGGTCABDBTGMCCTB
-----TGACCTTGMBBB-

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB



Reverse complement motif Consensus sequence: BAGGYCABHBTGACCKHV

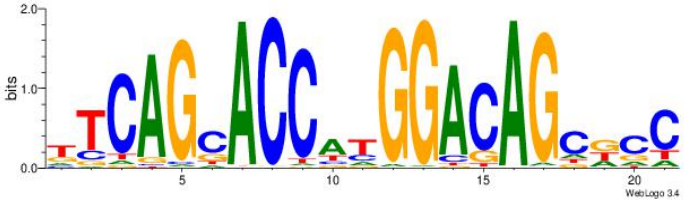


Dataset #:	3
Motif ID:	57
Motif name:	REST
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	5
Number of overlap:	12
Similarity score:	0.0884496

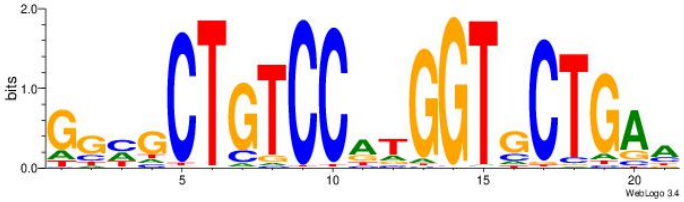
Alignment:

```
TTCAGCACCATGGACAGCKCC
----VBBYCAAGGTCA-----
```

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA

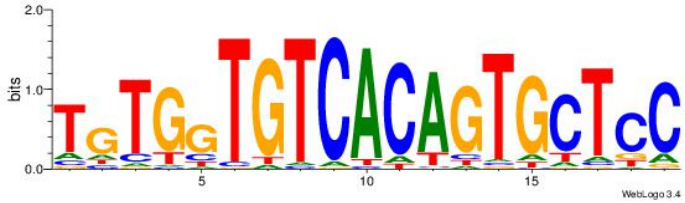


Dataset #:	4
Motif ID:	67
Motif name:	TgTGgTGTCACAGTGCTCC
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	12
Similarity score:	0.0943816

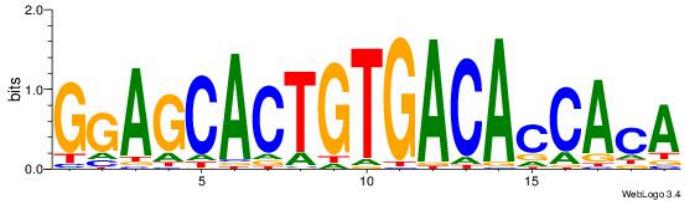
Alignment:

```
TGTGGTGTCACAGTGCTCC
-------TGACCTTGMBBB
```

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA

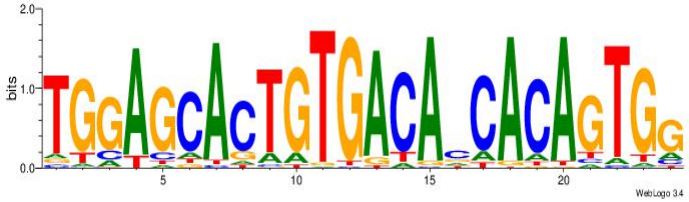


Dataset #:	4
Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	12

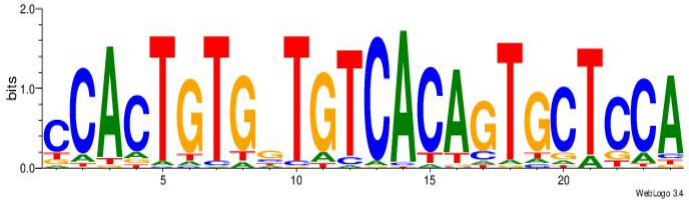
Number of overlap: 12
Similarity score: 0.0956646

Alignment:
CCACTGTGVTGTCACAGTGCTCCA
----------TGACCTTGMBBB-

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



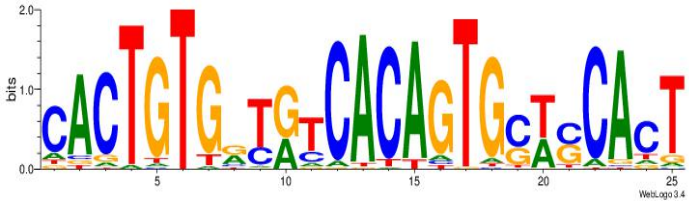
Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA



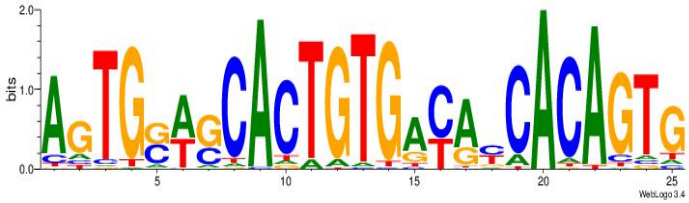
Dataset #: 4
Motif ID: 72
Motif name: CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 11
Number of overlap: 12
Similarity score: 0.100398

Alignment:
AGTGSWSCACTGTGAMAMCACAGTG
---VBBYCAAGGTCA----------

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG



Dataset #: 3 Motif ID: 55 Motif name: ZEB1

Original motif Consensus sequence: CACCTD

Reverse complement motif Consensus sequence: HAGGTG

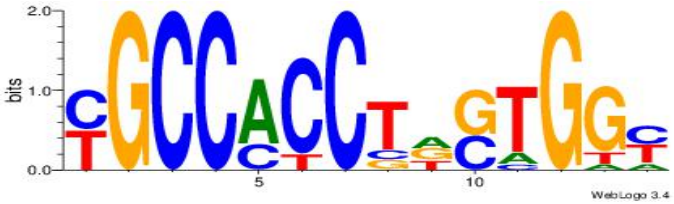
Best Matches for Motif ID 55 (Highest to Lowest)

Dataset #:	2
Motif ID:	47
Motif name:	Motif 47
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	6
Number of overlap:	6
Similarity score:	0

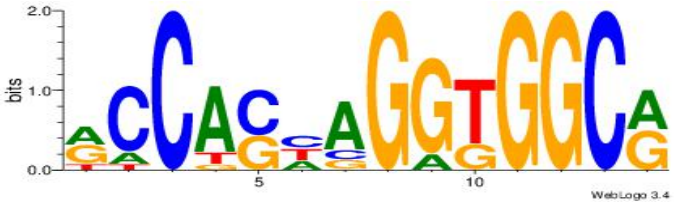
Alignment:

YGCCACCTDSTGGY
---CACCTD-----

Original motif Consensus sequence: YGCCACCTDSTGGY



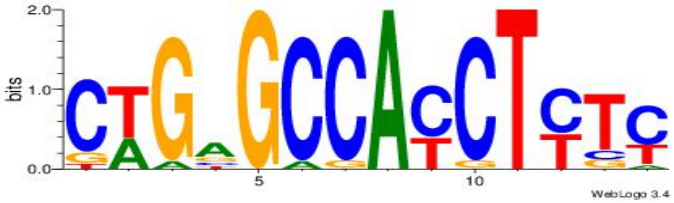
Reverse complement motif Consensus sequence: KCCASDAGGTGGC



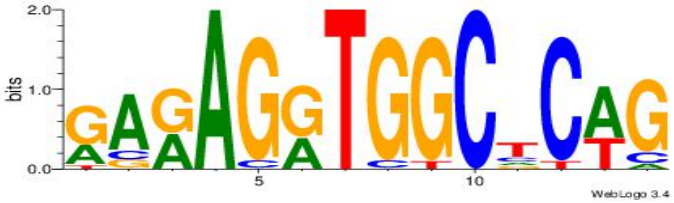
Dataset #:	1
Motif ID:	5
Motif name:	Motif 5
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	6
Similarity score:	0.00902841

Alignment:
CWGAGCCAYCTYTC
------CACCTD--

Original motif Consensus sequence: CWGAGCCAYCTYTC



Reverse complement motif Consensus sequence: GAKAGKTGGCTCW

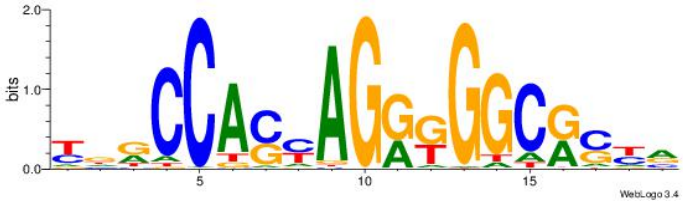


Dataset #:	3
Motif ID:	66
Motif name:	CTCF
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	8
Number of overlap:	6
Similarity score:	0.0118423

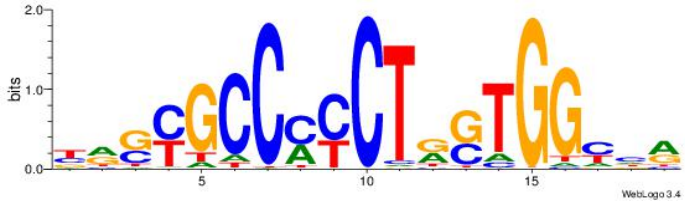
Alignment:

```
YDRCCASYAGRKGGCRSYV
-------HAGGTG------
```

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM



Dataset #:	3
Motif ID:	62
Motif name:	RORA_1
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward

Position number: 4
Number of overlap: 6
Similarity score: 0.0187312

Alignment:
TGACCTDVWT
-CACCTD---

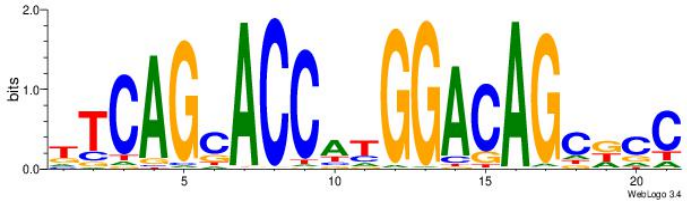
Original motif Consensus sequence: AWVDAGGTCA

Reverse complement motif Consensus sequence: TGACCTDVWT

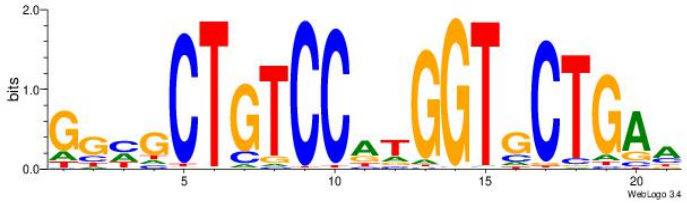
Dataset #: 3
Motif ID: 57
Motif name: REST
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 6
Number of overlap: 6
Similarity score: 0.0189156

Alignment:
GGYGCTGTCCATGGTGCTGAA
----------HAGGTG-----

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA

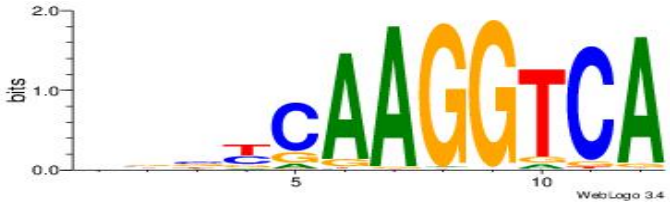


Dataset #:	3
Motif ID:	54
Motif name:	Esrrb
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	6
Similarity score:	0.0248883

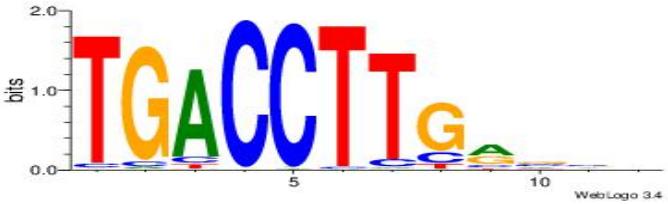
Alignment:

```
VBBYCAAGGTCA
-HAGGTG-----
```

Original motif Consensus sequence: VBBYCAAGGTCA



Reverse complement motif Consensus sequence: TGACCTTGMBBB

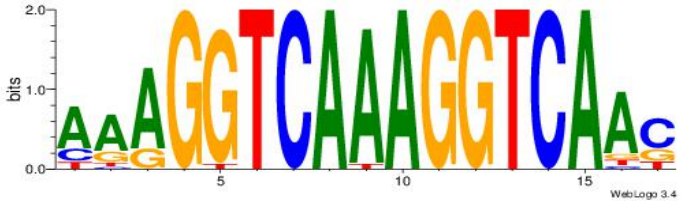


Dataset #:	3
Motif ID:	60
Motif name:	NR1H2RXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	6
Similarity score:	0.0278775

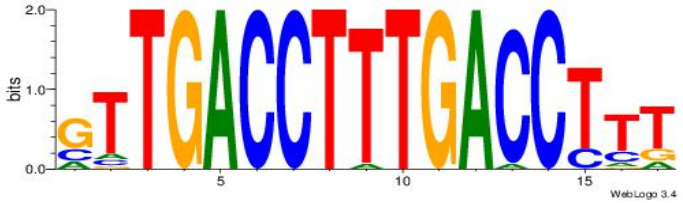
Alignment:

```
GTTGACCTTTGACCTTT
----------CACCTD-
```

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC



Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT



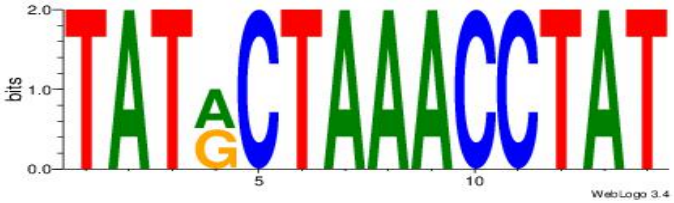
Dataset #:	1
Motif ID:	46
Motif name:	Motif 46
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	8

Number of overlap: 6
Similarity score: 0.0285279

Alignment:
TATKCTAAACCTAT
-CACCTD-------

Original motif Consensus sequence: ATAGGTTTAGYATA

Reverse complement motif Consensus sequence: TATKCTAAACCTAT

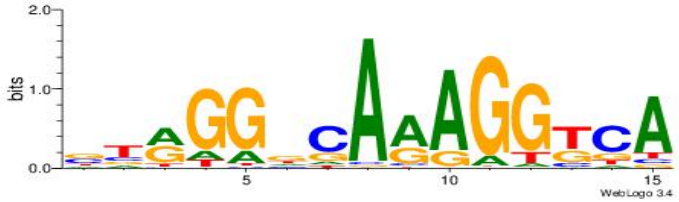


Dataset #: 3
Motif ID: 64
Motif name: PPARGRXRA
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 9
Number of overlap: 6
Similarity score: 0.0310859

Alignment:
TGRCCTKTGHCCKAB
-CACCTD--------

Original motif Consensus sequence: BTRGGDCARAGGKCA

Reverse complement motif Consensus sequence: TGRCCTKTGHCCK



Dataset #:	3
Motif ID:	61
Motif name:	NR4A2
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	6
Similarity score:	0.0334919

Alignment:

```
GTGACCTT
--CACCTD
```

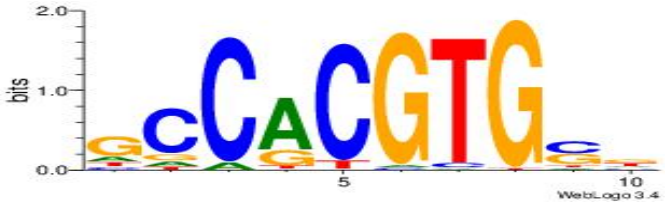
Original motif Consensus sequence: AAGGTCAC

Reverse complement motif Consensus sequence: GTGACCTT

Dataset #: 3 Motif ID: 56 Motif name: Mycn

Original motif Consensus sequence: HSCACGTGGC

Reverse complement motif Consensus sequence: GCCACGTGSD



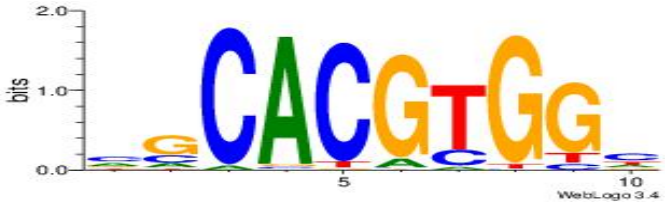
Best Matches for Motif ID 56 (Highest to Lowest)

Dataset #:	3
Motif ID:	58
Motif name:	Myc
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	10
Similarity score:	0

Alignment:

```
DCCACGTGCV
GCCACGTGSD
```

Original motif Consensus sequence: VGCACGTGGH



Reverse complement motif Consensus sequence: DCCACGTGCV

Dataset #:	4
Motif ID:	68
Motif name:	sscCCCGCGcs
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	10
Similarity score:	0.0654819

Alignment:

```
BSCCCCGCGBS
-GCCACGTGSD
```

Original motif Consensus sequence: BSCCCCGCGBS

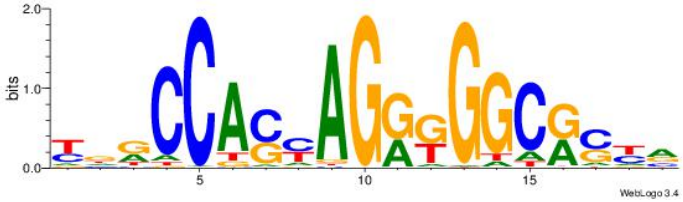
Reverse complement motif Consensus sequence: SBCGCGGGGSB

Dataset #:	3
Motif ID:	66
Motif name:	CTCF
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	6
Number of overlap:	10

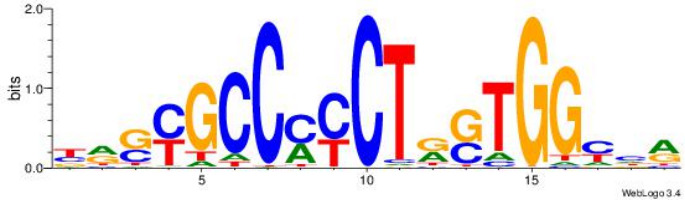
Similarity score: 0.0679017

Alignment:
YDRCCASYAGRKGGCRSYV
-----HSCACGTGGC----

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM

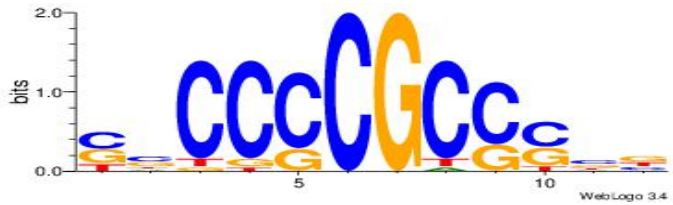


Dataset #: 4
Motif ID: 74
Motif name: ssCCCCGCSssk
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 2
Number of overlap: 10
Similarity score: 0.0704988

Alignment:
BBSGGCGGGGBS
-HSCACGTGGC-

Original motif Consensus sequence: SBCCCCGCCSBB

Reverse complement motif Consensus sequence: BBSGGCGGGGBS

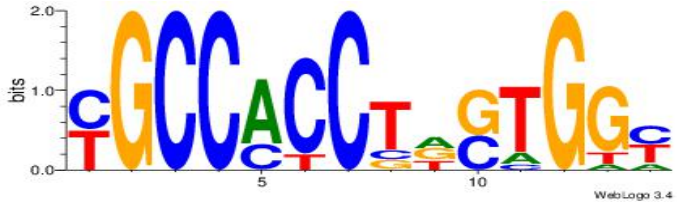


Dataset #:	2
Motif ID:	47
Motif name:	Motif 47
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	10
Similarity score:	0.0733001

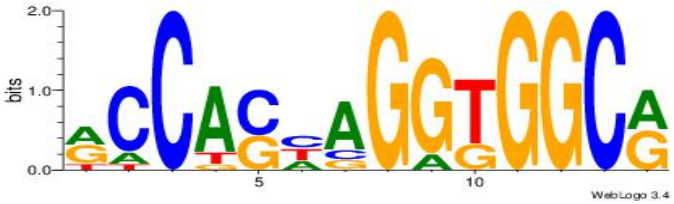
Alignment:

```
KCCASDAGGTGGCK
-HSCACGTGGC---
```

Original motif Consensus sequence: YGCCACCTDSTGGY



Reverse complement motif Consensus sequence: KCCASDAGGTGGC



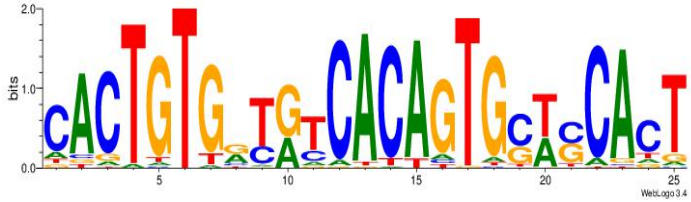
Dataset #:	4
Motif ID:	72

Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	10
Number of overlap:	10
Similarity score:	0.0883224

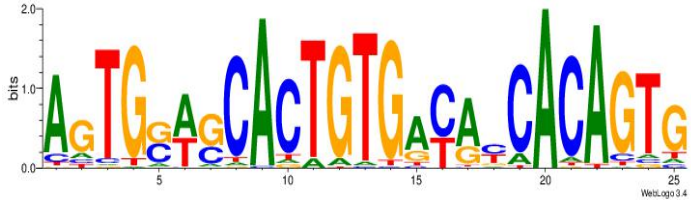
Alignment:

```
AGTGSWSCACTGTGAMAMCACAGTG
------GCCACGTGSD---------
```

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



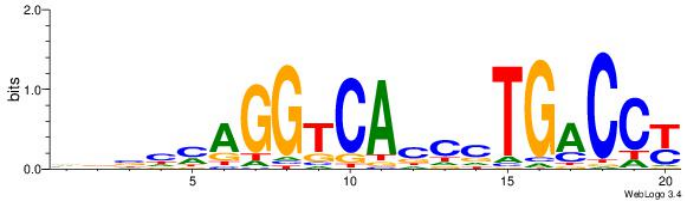
Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG



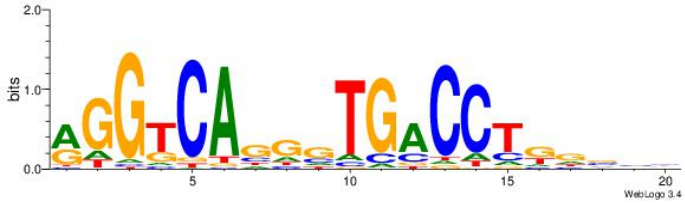
Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	10
Similarity score:	0.089863

Alignment:
MGGTCAGGGTGACCTRDBHV
--------GCCACGTGSD--

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

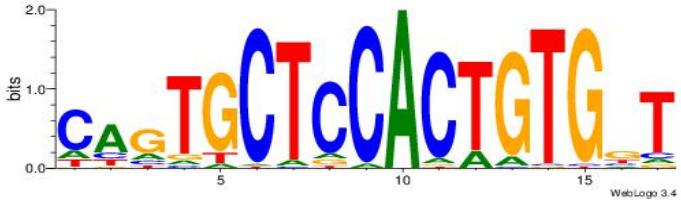


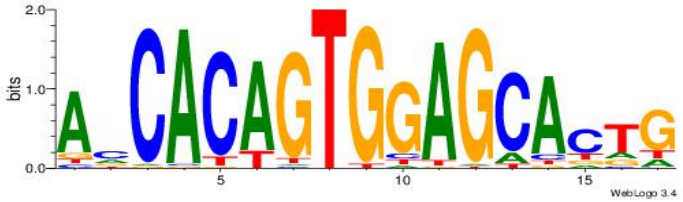
Dataset #:	4
Motif ID:	70
Motif name:	CagTGCTCCACTGTGgT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	7
Number of overlap:	10
Similarity score:	0.0943014

Alignment:
ABCACAGTGGAGCACTG
-GCCACGTGSD------

Original motif Consensus sequence: CAGTGCTCCACTGTGBT

Reverse complement motif Consensus sequence: ABCACAGTGGAGCACTG



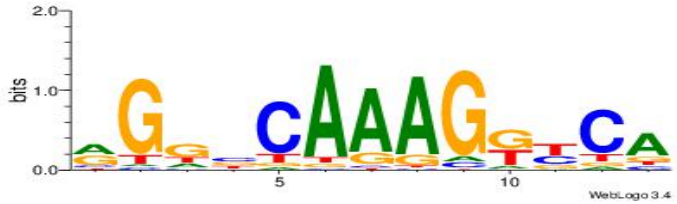


Dataset #:	3
Motif ID:	51
Motif name:	HNF4A
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	10
Similarity score:	0.0947124

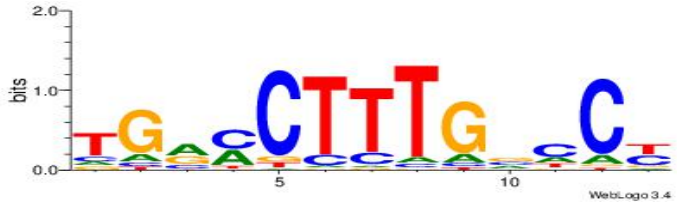
Alignment:

```
TGMYCTTTGBCCK
-GCCACGTGSD--
```

Original motif Consensus sequence: RGGBCAAAGKYCA



Reverse complement motif Consensus sequence: TGMYCTTTGBCCK



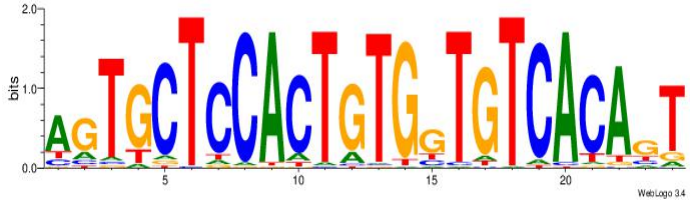
Dataset #:	4
Motif ID:	77

Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	6
Number of overlap:	10
Similarity score:	0.0949359

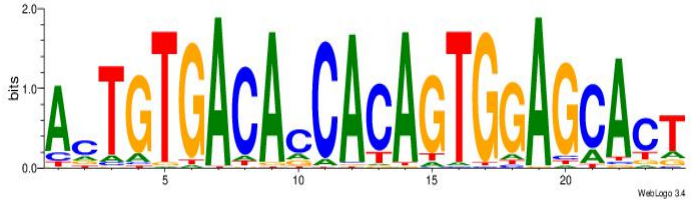
Alignment:

```
ACTGTGACACCACAGTGGAGCACT
---------GCCACGTGSD-----
```

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT

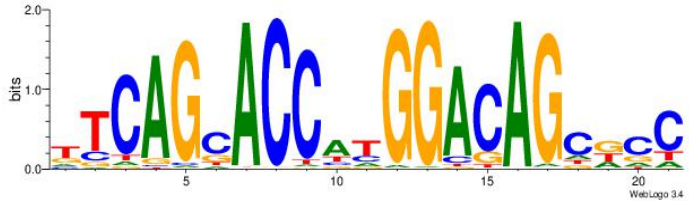


Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT

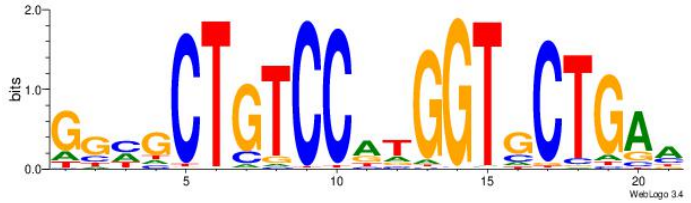


Dataset #: 3 Motif ID: 57 Motif name: REST

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA



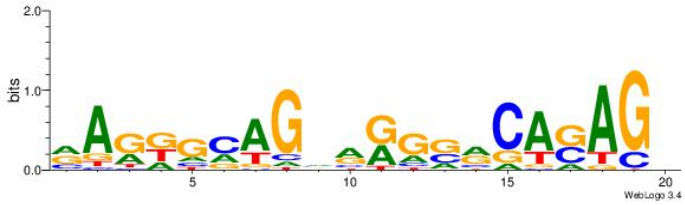
Best Matches for Motif ID 57 (Highest to Lowest)

Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	20
Similarity score:	0.0656473

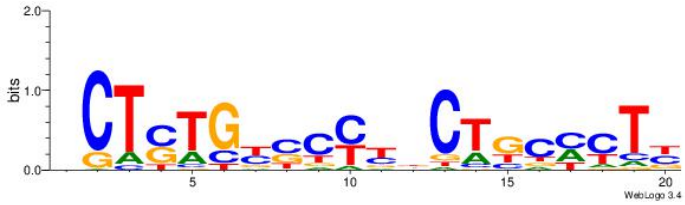
Alignment:

```
-VCTSTGKSCMKBCTRCYCTK
GGYGCTGTCCATGGTGCTGAA
```

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK



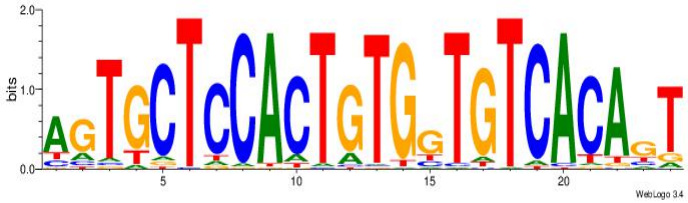
Dataset #:	4
Motif ID:	77
Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif

Direction:	Backward
Position number:	6
Number of overlap:	19
Similarity score:	0.560523

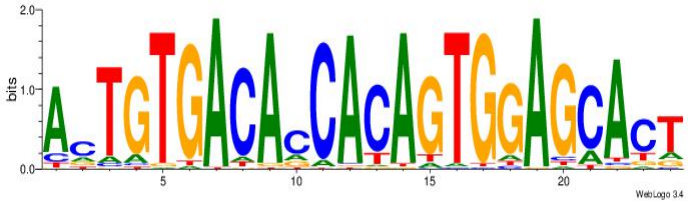
Alignment:

```
--AGTGCTCCACTGTGGTGTCACAGT
GGYGCTGTCCATGGTGCTGAA-----
```

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT

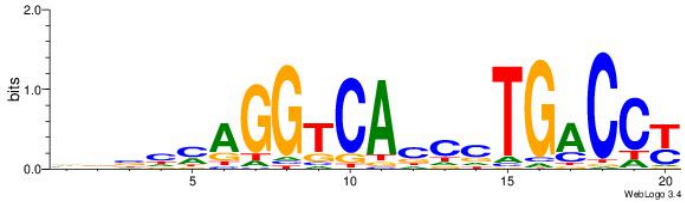


Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	5
Number of overlap:	16
Similarity score:	2.06264

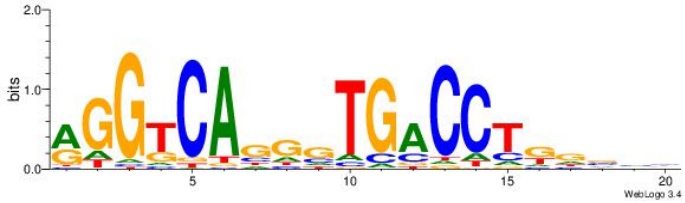
Alignment:

```
-----VDBHMAGGTCACCCTGACCY
TTCAGCACCATGGACAGCKCC----
```

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

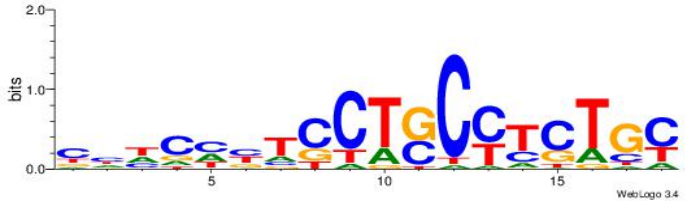


Dataset #:	5
Motif ID:	90
Motif name:	TFM2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	5
Number of overlap:	14
Similarity score:	3.06651

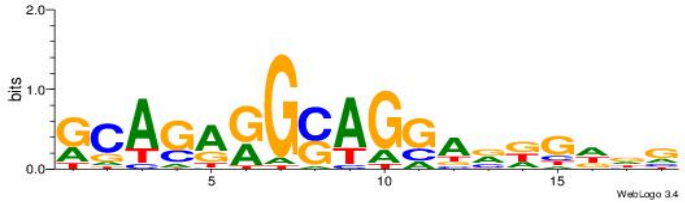
Alignment:

```
CHHCHBTCCTSCYTCTGC-------
----GGYGCTGTCCATGGTGCTGAA
```

Original motif Consensus sequence: CHHCHBTCCTSCYTCTGC



Reverse complement motif Consensus sequence: GCAGAKGSAGGABDGHDG

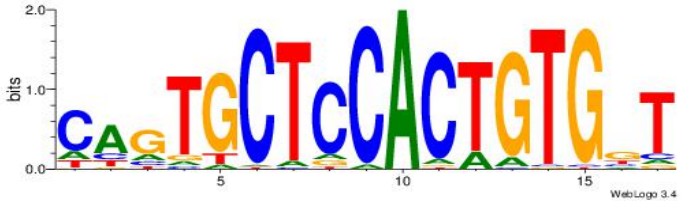


Dataset #:	4
Motif ID:	70
Motif name:	CagTGCTCCACTGTGgT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	14
Similarity score:	3.07032

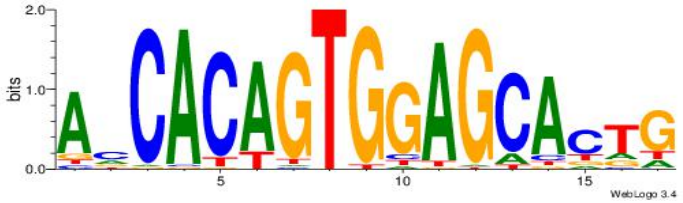
Alignment:

```
-------ABCACAGTGGAGCACTG
GGYGCTGTCCATGGTGCTGAA---
```

Original motif Consensus sequence: CAGTGCTCCACTGTGBT



Reverse complement motif Consensus sequence: ABCACAGTGGAGCACTG

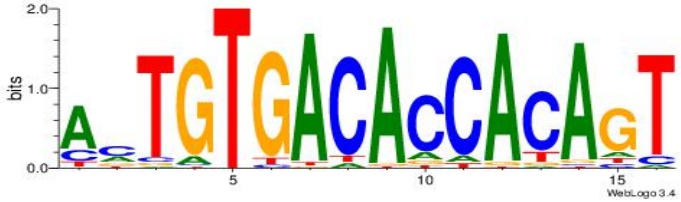


Dataset #:	4
Motif ID:	71
Motif name:	AmTGTGACACCACAGT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3

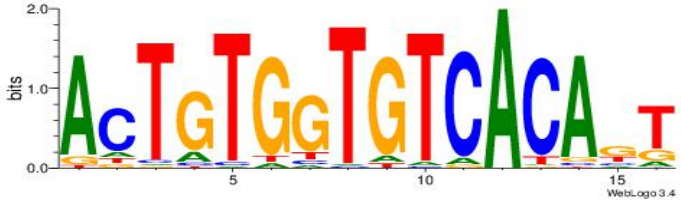
Number of overlap: 14
Similarity score: 3.07054

Alignment:
ACTGTGGTGTCACART-------
--GGYGCTGTCCATGGTGCTGAA

Original motif Consensus sequence: AMTGTGACACCACAGT



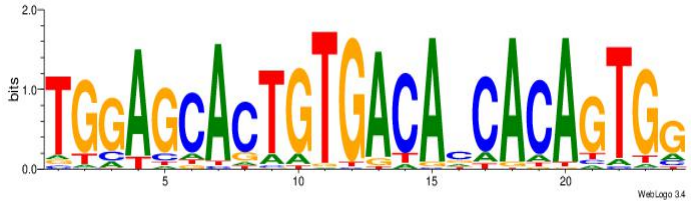
Reverse complement motif Consensus sequence: ACTGTGGTGTCACART



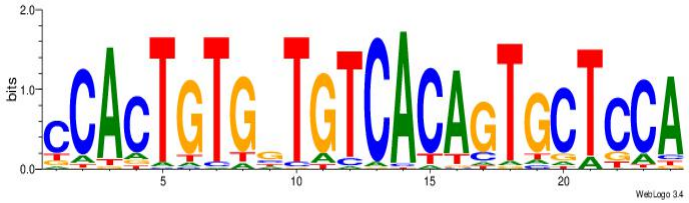
Dataset #: 4
Motif ID: 73
Motif name: TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 12
Number of overlap: 13
Similarity score: 3.54841

Alignment:
TGGAGCACTGTGACAVCACAGTGG--------
-----------TTCAGCACCATGGACAGCKCC

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

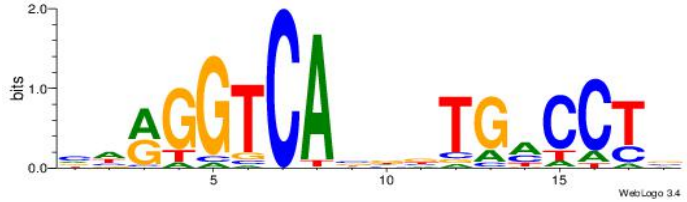


Dataset #:	3
Motif ID:	59
Motif name:	ESR2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	6
Number of overlap:	13
Similarity score:	3.55156

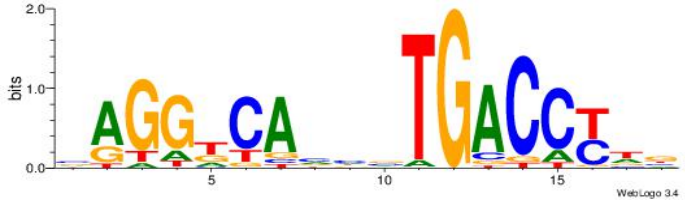
Alignment:

```
BAGGYCABHBTGACCKHV--------
-----GGYGCTGTCCATGGTGCTGAA
```

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB



Reverse complement motif Consensus sequence: BAGGYCABHBTGACCKHV

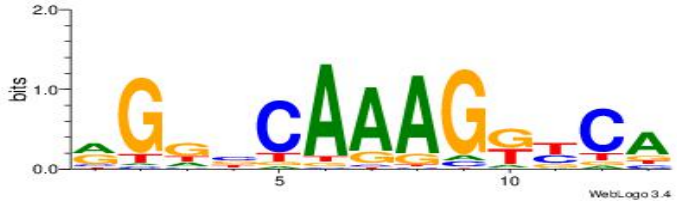


Dataset #:	3
Motif ID:	51
Motif name:	HNF4A
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	13
Similarity score:	3.56375

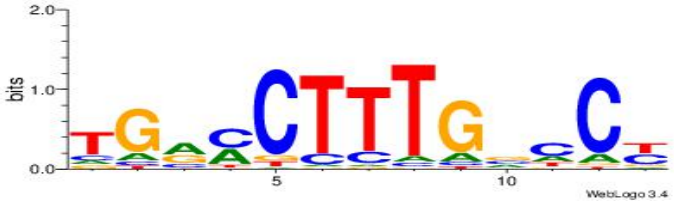
Alignment:

```
TGMYCTTTGBCCK--------
GGYGCTGTCCATGGTGCTGAA
```

Original motif Consensus sequence: RGGBCAAAGKYCA



Reverse complement motif Consensus sequence: TGMYCTTTGBCCK



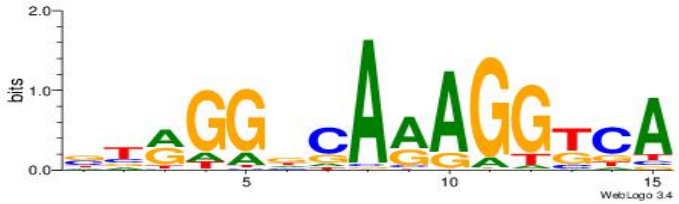
Dataset #:	3
Motif ID:	64
Motif name:	PPARGRXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	13

Similarity score: 3.56574

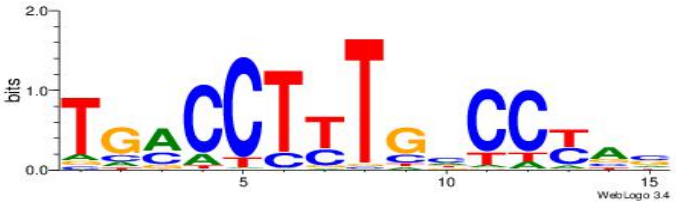
Alignment:

```
--------BTRGGDCARAGGKCA
TTCAGCACCATGGACAGCKCC--
```

Original motif Consensus sequence: BTRGGDCARAGGKCA

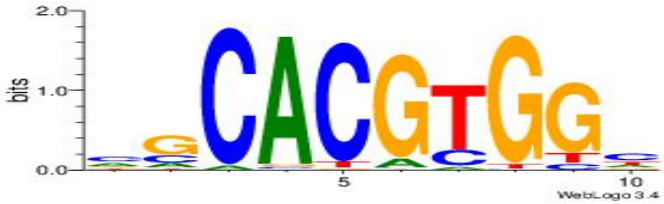


Reverse complement motif Consensus sequence: TGRCCTKTGHCCK



Dataset #: 3 Motif ID: 58 Motif name: Myc

Original motif Consensus sequence: VGCACGTGGH



Reverse complement motif Consensus sequence: DCCACGTGCV

Best Matches for Motif ID 58 (Highest to Lowest)

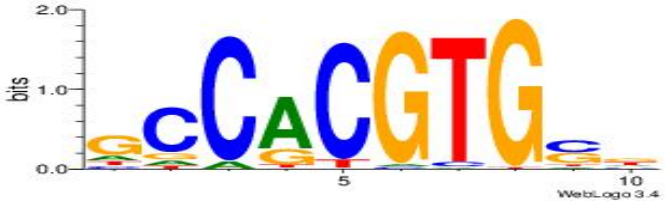
Dataset #:	3
Motif ID:	56
Motif name:	Mycn
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward

Position number: 1
Number of overlap: 10
Similarity score: 0

Alignment:
HSCACGTGGC
VGCACGTGGH

Original motif Consensus sequence: HSCACGTGGC

Reverse complement motif Consensus sequence: GCCACGTGSD



Dataset #: 4
Motif ID: 68
Motif name: sscCCCGCGcs
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Backward
Position number: 1
Number of overlap: 10
Similarity score: 0.064853

Alignment:
BSCCCCGCGBS
-DCCACGTGCV

Original motif Consensus sequence: BSCCCCGCGBS

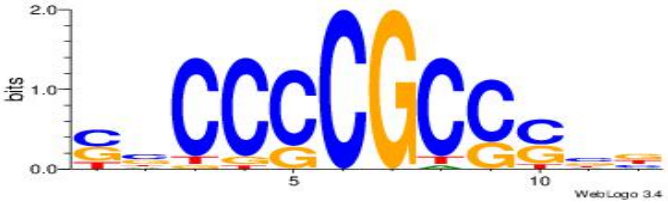
Reverse complement motif Consensus sequence: SBCGCGGGGSB

Dataset #:	4
Motif ID:	74
Motif name:	ssCCCCGCSssk
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	10
Similarity score:	0.0728588

Alignment:

```
SBCCCCGCCSBB
-DCCACGTGCV-
```

Original motif Consensus sequence: SBCCCCGCCSBB



Reverse complement motif Consensus sequence: BBSGGCGGGGBS

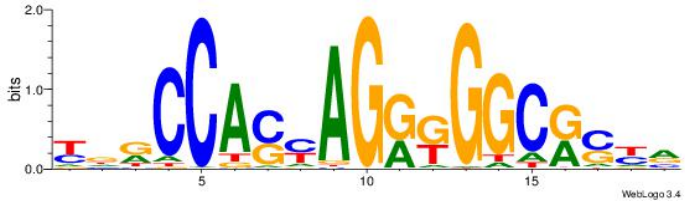
Dataset #:	3

Motif ID:	66
Motif name:	CTCF
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	8
Number of overlap:	10
Similarity score:	0.0754257

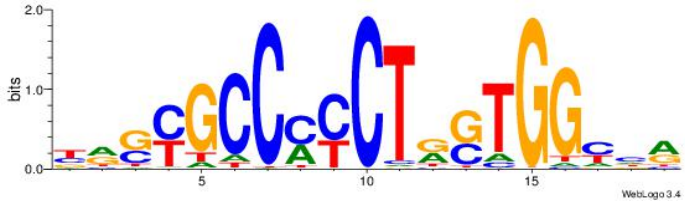
Alignment:

```
YDRCCASYAGRKGGCRSYV
--DCCACGTGCV-------
```

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM

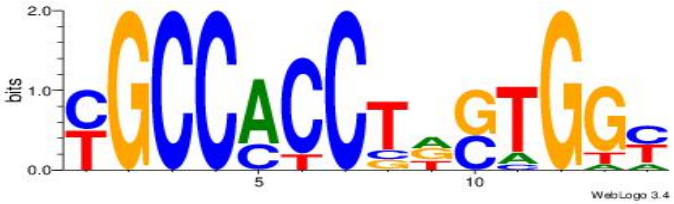


Dataset #:	2
Motif ID:	47
Motif name:	Motif 47
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	10

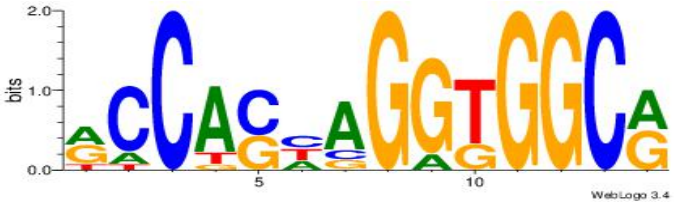
Similarity score: 0.0792377

Alignment:
KCCASDAGGTGGCK
-VGCACGTGGH---

Original motif Consensus sequence: YGCCACCTDSTGGY



Reverse complement motif Consensus sequence: KCCASDAGGTGGC

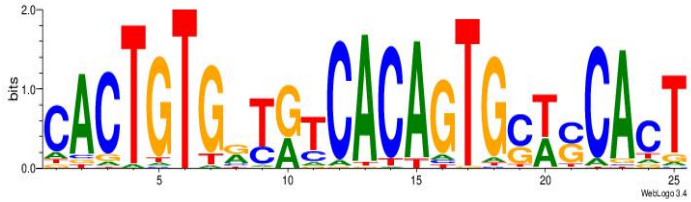


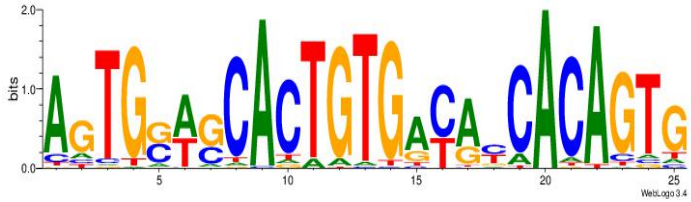
Dataset #: 4
Motif ID: 72
Motif name: CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Backward
Position number: 6
Number of overlap: 10
Similarity score: 0.0888909

Alignment:
CACTGTGRTRTCACAGTGSWSCACT
----------DCCACGTGCV-----

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT

Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG



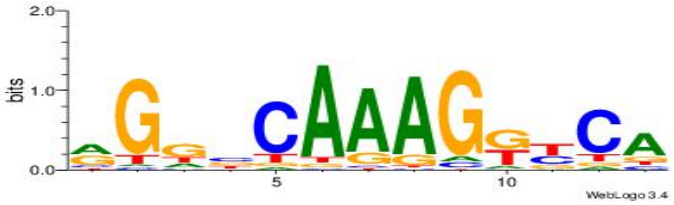


Dataset #:	3
Motif ID:	51
Motif name:	HNF4A
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	10
Similarity score:	0.0934488

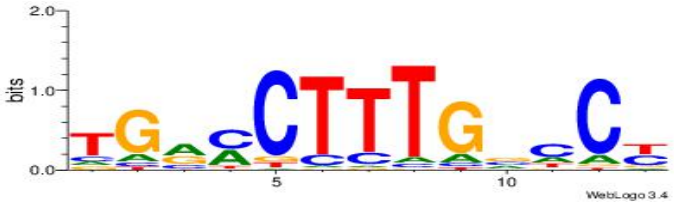
Alignment:

```
TGMYCTTTGBCCK
---VGCACGTGGH
```

Original motif Consensus sequence: RGGBCAAAGKYCA



Reverse complement motif Consensus sequence: TGMYCTTTGBCCK



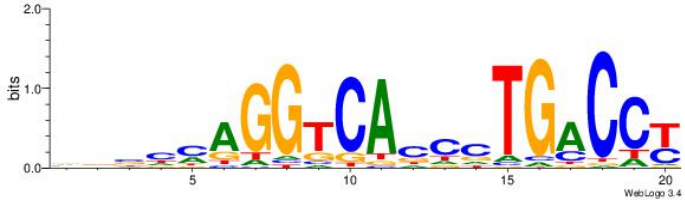
Dataset #:	3
Motif ID:	53

Motif name:	ESR1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	9
Number of overlap:	10
Similarity score:	0.0940438

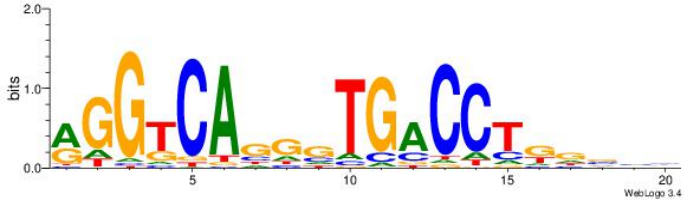
Alignment:

```
MGGTCAGGGTGACCTRDBHV
--------DCCACGTGCV--
```

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



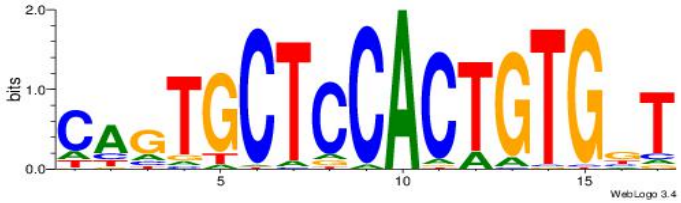
Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV



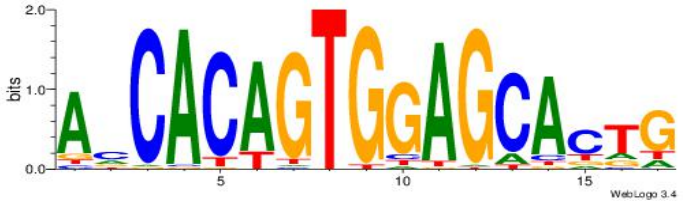
Dataset #:	4
Motif ID:	70
Motif name:	CagTGCTCCACTGTGgT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	7
Number of overlap:	10
Similarity score:	0.0955234

Alignment:
ABCACAGTGGAGCACTG
-DCCACGTGCV------

Original motif Consensus sequence: CAGTGCTCCACTGTGBT



Reverse complement motif Consensus sequence: ABCACAGTGGAGCACTG

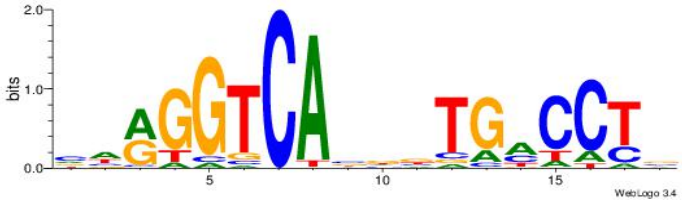


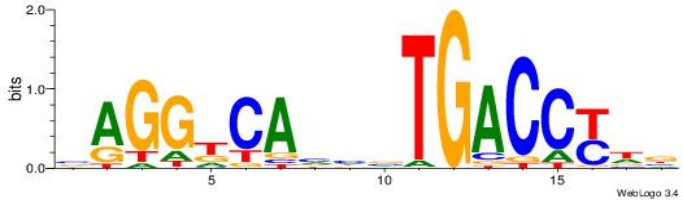
Dataset #:	3
Motif ID:	59
Motif name:	ESR2
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	5
Number of overlap:	10
Similarity score:	0.0968598

Alignment:
VHRGGTCABDBTGMCCTB
----VGCACGTGGH----

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB

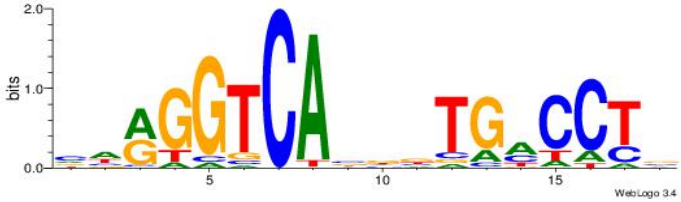
Reverse complement motif Consensus sequence: BAGGYCABHBTGACCKHV



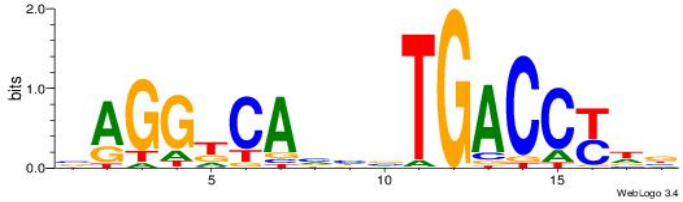


Dataset #: 3 **Motif ID: 59** **Motif name: ESR2**

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB



Reverse complement motif Consensus sequence: BAGGYCABHBTGACCKHV



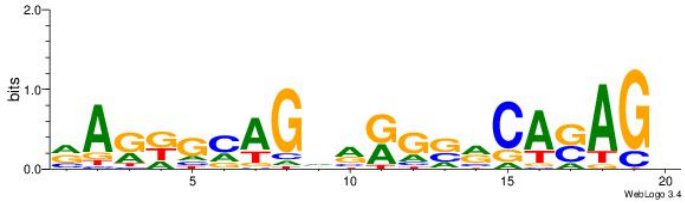
Best Matches for Motif ID 59 (Highest to Lowest)

Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	18
Similarity score:	0.0691727

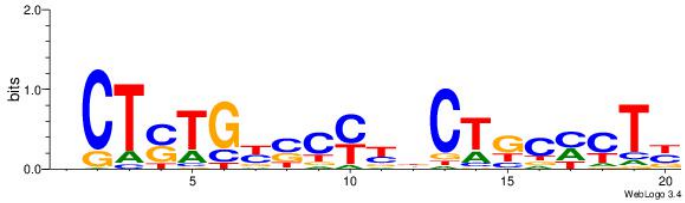
Alignment:

VCTSTGKSCMKBCTRCYCTK
--VHRGGTCABDBTGMCCTB

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK

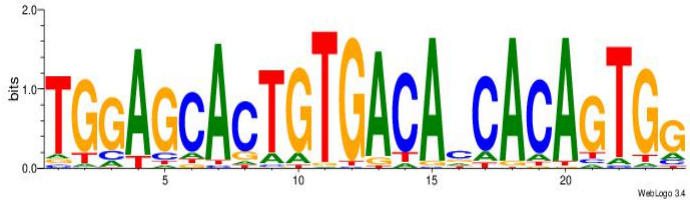


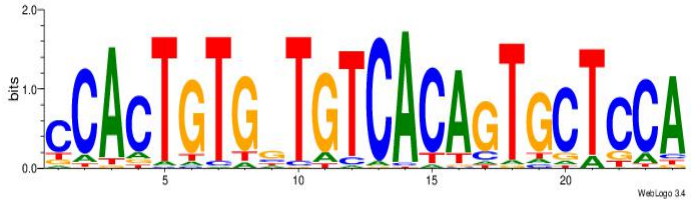
Dataset #:	4
Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	7
Number of overlap:	18
Similarity score:	0.0717757

Alignment:
CCACTGTGVTGTCACAGTGCTCCA
------VHRGGTCABDBTGMCCTB

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG

Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

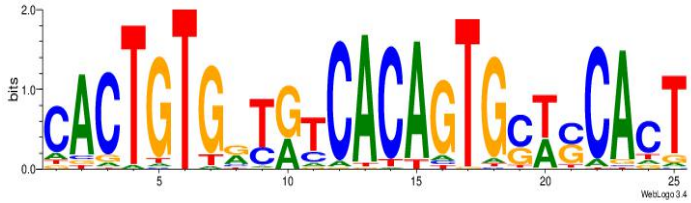




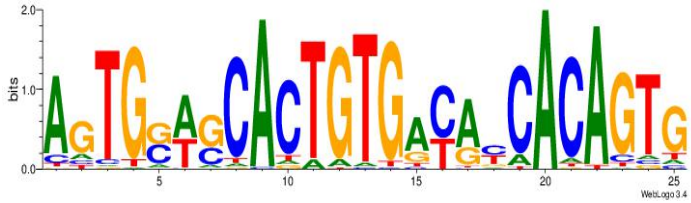
Dataset #: 4
Motif ID: 72
Motif name: CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 2
Number of overlap: 18
Similarity score: 0.0815903

Alignment:
AGTGSWSCACTGTGAMAMCACAGTG
-VHRGGTCABDBTGMCCTB------

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG



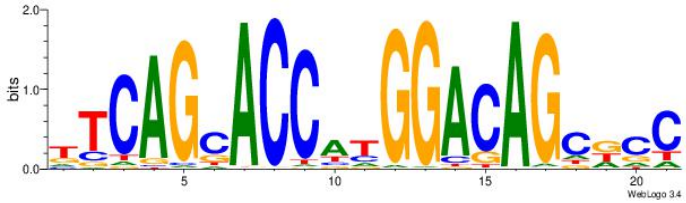
Dataset #: 3

Motif ID:	57
Motif name:	REST
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	18
Similarity score:	0.0916961

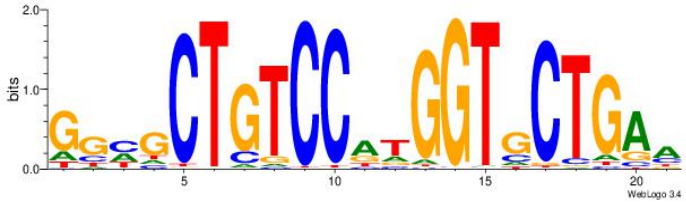
Alignment:

```
GGYGCTGTCCATGGTGCTGAA
-VHRGGTCABDBTGMCCTB--
```

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA

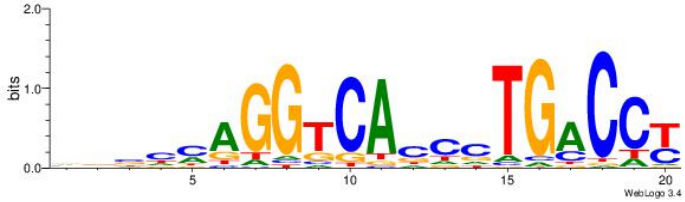


Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	4
Number of overlap:	17

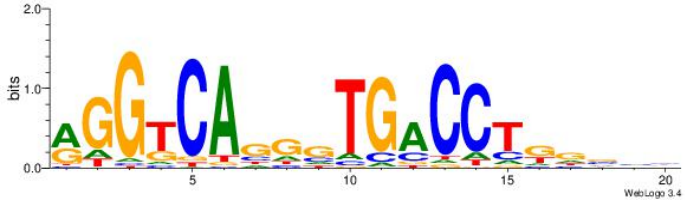
Similarity score: 0.511812

Alignment:
VDBHMAGGTCACCCTGACCY-
---VHRGGTCABDBTGMCCTB

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence:
MGGTCAGGGTGACCTRDBHV

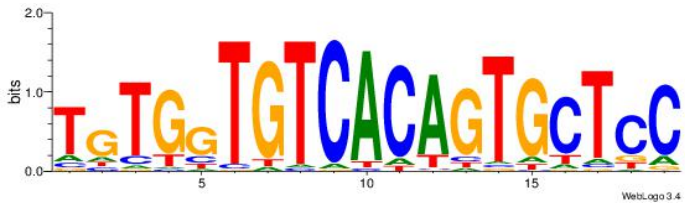


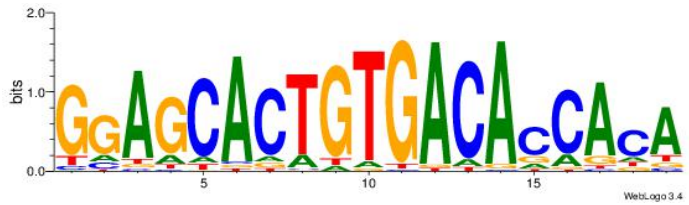
Dataset #: 4
Motif ID: 67
Motif name: TgTGgTGTCACAGTGCTCC
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 3
Number of overlap: 17
Similarity score: 0.569595

Alignment:
TGTGGTGTCACAGTGCTCC-
--VHRGGTCABDBTGMCCTB

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC

Reverse complement motif Consensus sequence:
GGAGCACTGTGACACCACA

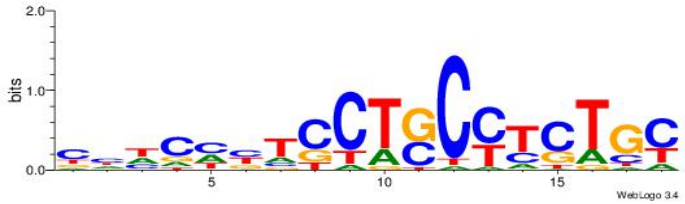




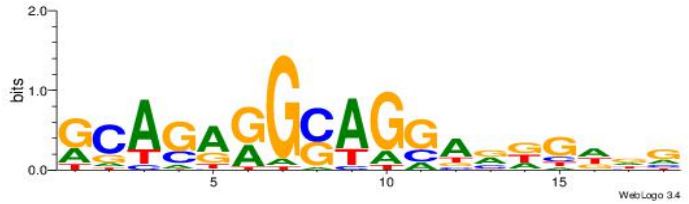
Dataset #: 5
Motif ID: 90
Motif name: TFM2
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 2
Number of overlap: 17
Similarity score: 0.583467

Alignment:
GCAGAKGSAGGABDGHDG-
-VHRGGTCABDBTGMCCTB

Original motif Consensus sequence: CHHCHBTCCTSCYTCTGC



Reverse complement motif Consensus sequence:
GCAGAKGSAGGABDGHDG



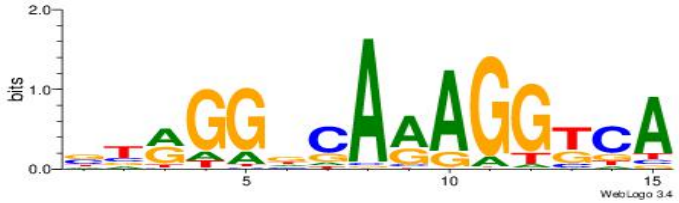
Dataset #: 3

Motif ID:	64
Motif name:	PPARGRXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	15
Similarity score:	1.56699

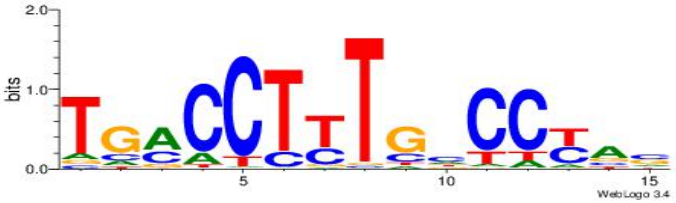
Alignment:

```
BTRGGDCARAGGKCA---
VHRGGTCABDBTGMCCTB
```

Original motif Consensus sequence: BTRGGDCARAGGKCA



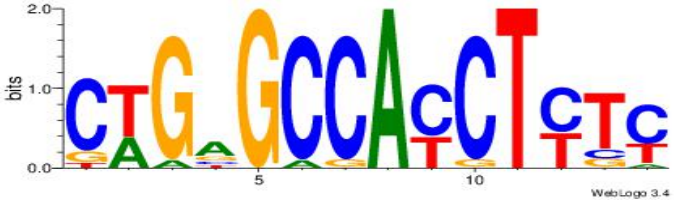
Reverse complement motif Consensus sequence: TGRCCTKTGHCCK



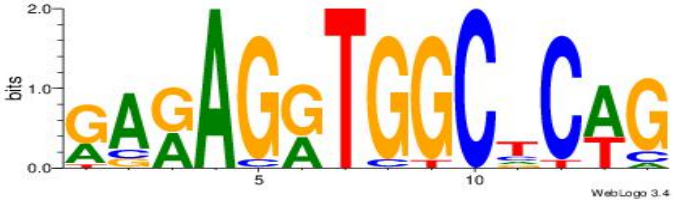
Dataset #:	1
Motif ID:	5
Motif name:	Motif 5
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	14
Similarity score:	2.08635

Alignment:
CWGAGCCAYCTYTC----
VHRGGTCABDBTGMCCTB

Original motif Consensus sequence: CWGAGCCAYCTYTC



Reverse complement motif Consensus sequence: GAKAGKTGGCTCW

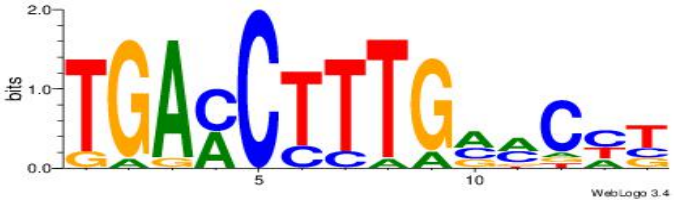


Dataset #:	3
Motif ID:	52
Motif name:	NR2F1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	14
Similarity score:	2.08921

Alignment:
----TGAMCTTTGMMCYT
VHRGGTCABDBTGMCCTB

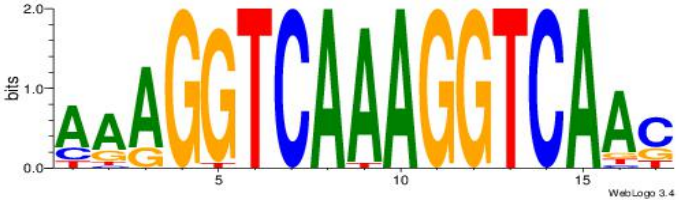
Original motif Consensus sequence: TGAMCTTTGMMCYT

Reverse complement motif Consensus sequence: AKGYYCAAAGRTC

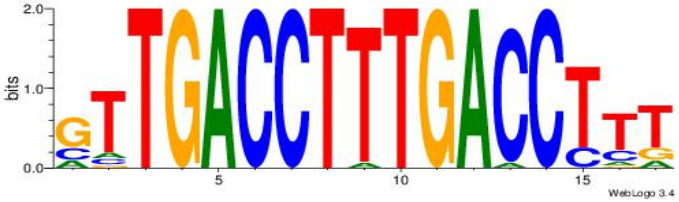


Dataset #: 3 Motif ID: 60 Motif name: NR1H2RXRA

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC



Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT



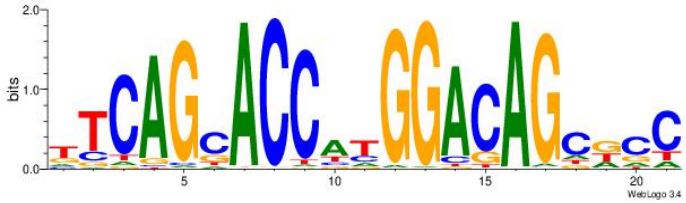
Best Matches for Motif ID 60 (Highest to Lowest)

Dataset #:	3
Motif ID:	57
Motif name:	REST
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	17
Similarity score:	0.0911991

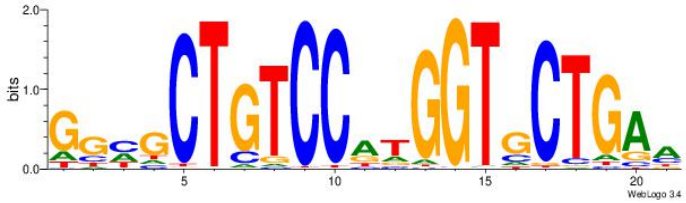
Alignment:

GGYGCTGTCCATGGTGCTGAA
---GTTGACCTTTGACCTTT-

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA

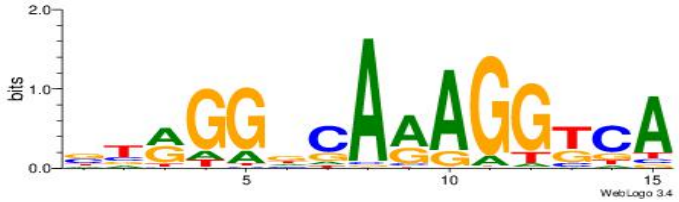


Dataset #:	3
Motif ID:	64
Motif name:	PPARGRXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	15
Similarity score:	1.05945

Alignment:
BTRGGDCARAGGKCA--
AAAGGTCAAAGGTCAAC

Original motif Consensus sequence: BTRGGDCARAGGKCA

Reverse complement motif Consensus sequence: TGRCCTKTGHCCK



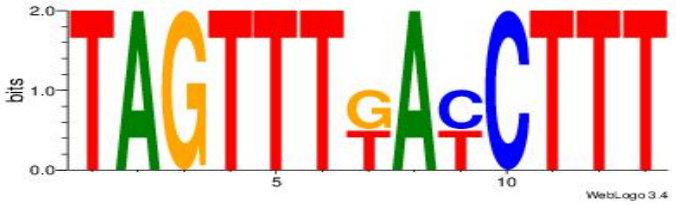
Dataset #:	1
Motif ID:	15
Motif name:	Motif 15
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	13
Similarity score:	2.0701

Alignment:

```
AAAGRTMAAACTA----
AAAGGTCAAAGGTCAAC
```

Original motif Consensus sequence: AAAGRTMAAACTA

Reverse complement motif Consensus sequence: TAGTTTYAKCTTT



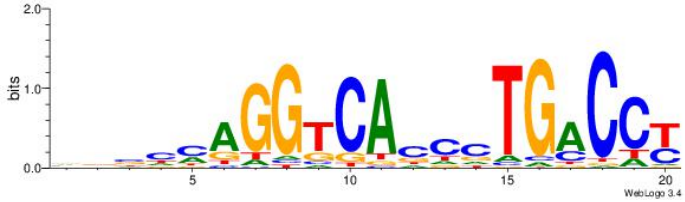
Dataset #:	3
Motif ID:	53

Motif name:	ESR1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	8
Number of overlap:	13
Similarity score:	2.08514

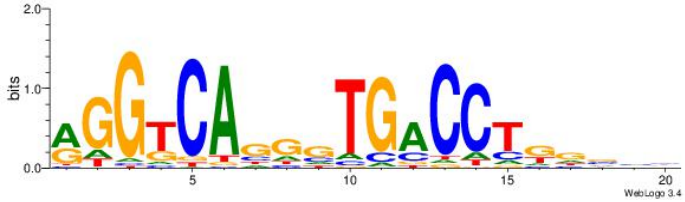
Alignment:

```
----VDBHMAGGTCACCCTGACCY
AAAGGTCAAAGGTCAAC-------
```

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

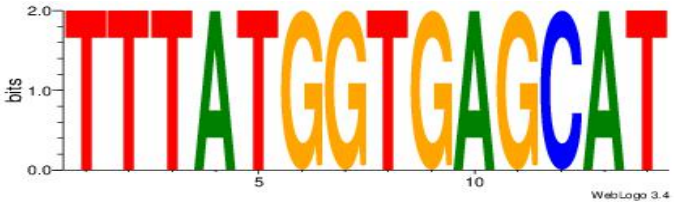


Dataset #:	1
Motif ID:	22
Motif name:	Motif 22
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	12
Similarity score:	2.58792

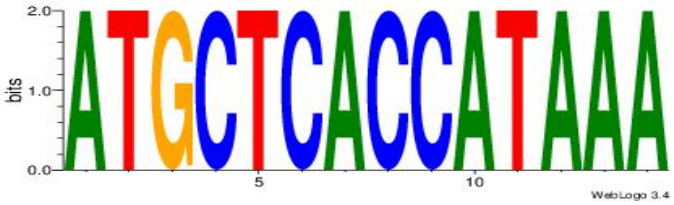
Alignment:

```
-----TTTATGGTGAGCAT
AAAGGTCAAAGGTCAAC--
```

Original motif Consensus sequence: TTTATGGTGAGCAT



Reverse complement motif Consensus sequence: ATGCTCACCATAA



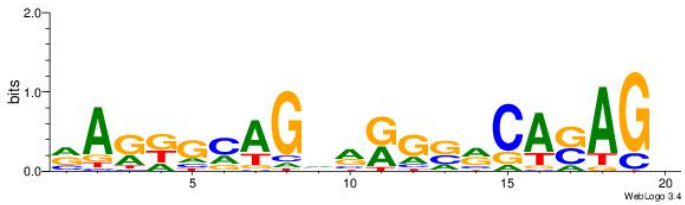
Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	9
Number of overlap:	12
Similarity score:	2.58894

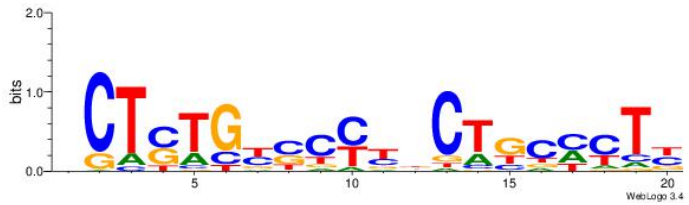
Alignment:

```
RAGKGMAGVRRGSRCASAGV-----
--------AAAGGTCAAAGGTCAAC
```

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV

Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK



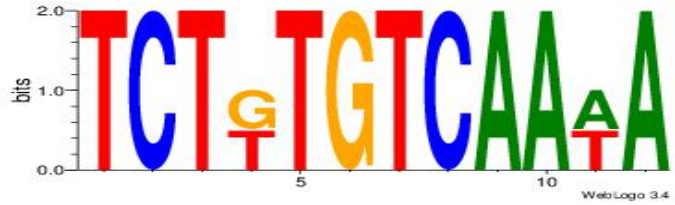


Dataset #:	1
Motif ID:	16
Motif name:	Motif 16
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	12
Similarity score:	2.59792

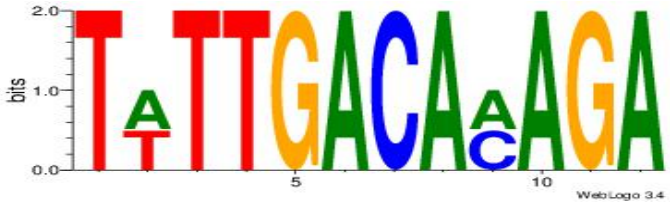
Alignment:

```
-----TWTTGACAYAGA
AAAGGTCAAAGGTCAAC
```

Original motif Consensus sequence: TCTKTGTCAAWA



Reverse complement motif Consensus sequence: TWTTGACAYAGA



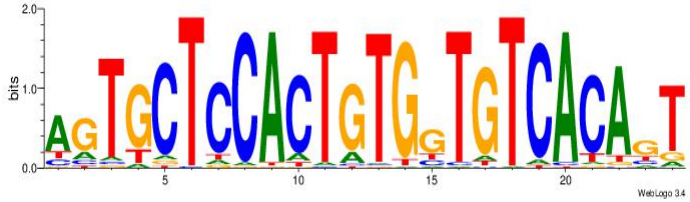
Dataset #:	4
Motif ID:	77

Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	13
Number of overlap:	12
Similarity score:	2.59961

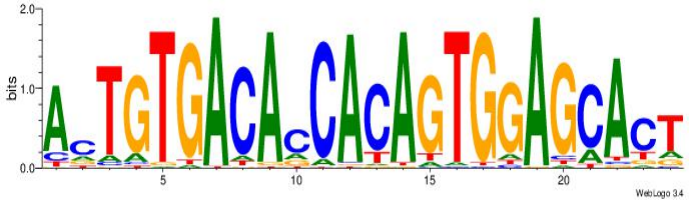
Alignment:

```
AGTGCTCCACTGTGGTGTCACAGT-----
------------AAAGGTCAAAGGTCAAC
```

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



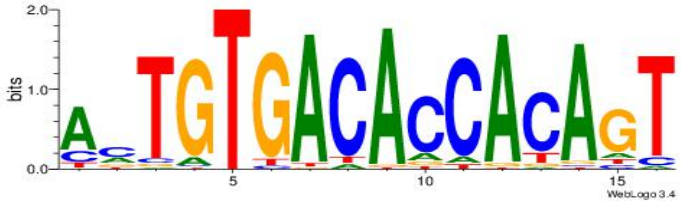
Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT



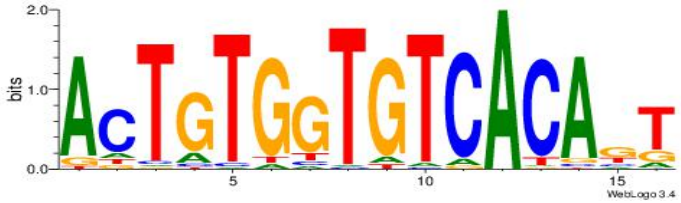
Dataset #:	4
Motif ID:	71
Motif name:	AmTGTGACACCACAGT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	5
Number of overlap:	12
Similarity score:	2.59967

Alignment:
ACTGTGGTGTCACART-----
----AAAGGTCAAAGGTCAAC

Original motif Consensus sequence: AMTGTGACACCACAGT



Reverse complement motif Consensus sequence: ACTGTGGTGTCACART



Dataset #:	1
Motif ID:	18
Motif name:	Motif 18
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	3.05261

Alignment:
------CAAAGTCCAGC
AAAGGTCAAAGGTCAAC

Original motif Consensus sequence: CAAAGTCCAGC

Reverse complement motif Consensus sequence: GCTGGACTTTG

Dataset #: 3 Motif ID: 61 Motif name: NR4A2

Original motif Consensus sequence: AAGGTCAC

Reverse complement motif Consensus sequence: GTGACCTT

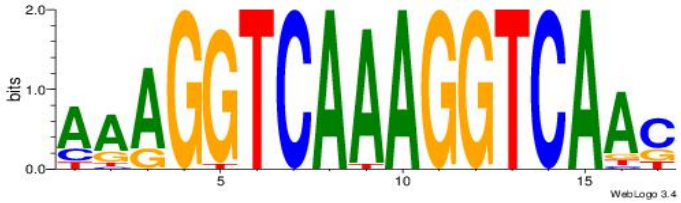
Best Matches for Motif ID 61 (Highest to Lowest)

Dataset #:	3
Motif ID:	60
Motif name:	NR1H2RXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	9
Number of overlap:	8
Similarity score:	0.0167759

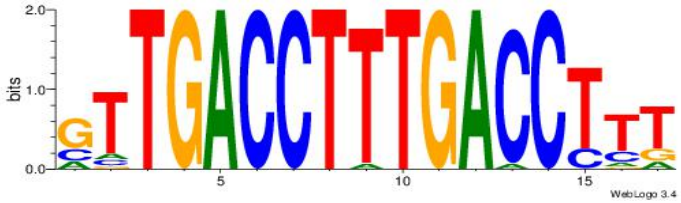
Alignment:

```
AAAGGTCAAAGGTCAAC
-AAGGTCAC--------
```

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC



Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT

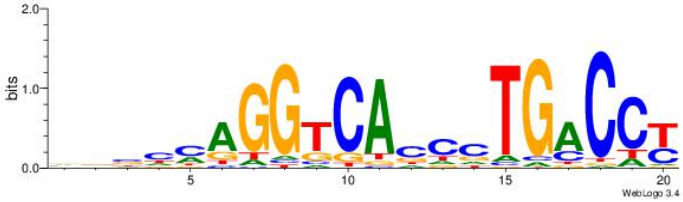


Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	5
Number of overlap:	8
Similarity score:	0.0195235

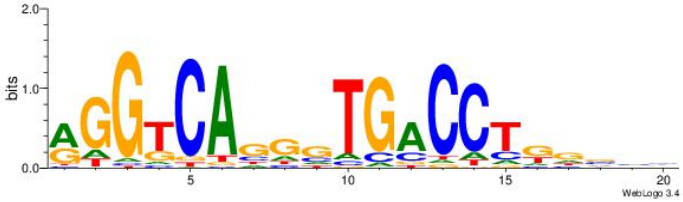
Alignment:

```
VDBHMAGGTCACCCTGACCY
----AAGGTCAC--------
```

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

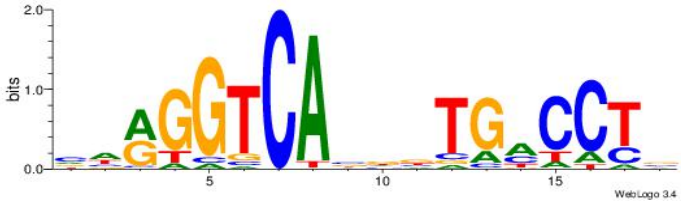


Dataset #:	3
Motif ID:	59
Motif name:	ESR2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	8
Similarity score:	0.0198372

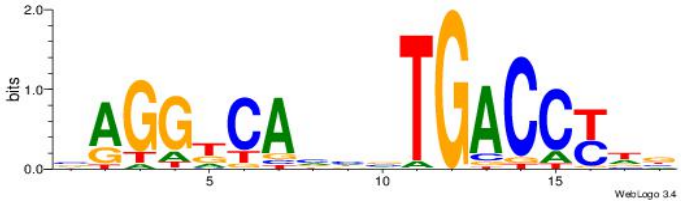
Alignment:

```
BAGGYCABHBTGACCKHV
---------GTGACCTT-
```

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB



Reverse complement motif Consensus sequence: BAGGYCABHBTGACCKHV



Dataset #:	1
Motif ID:	17
Motif name:	Motif 17
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1

Number of overlap: 8
Similarity score: 0.0393171

Alignment:
CTTCTGACCTC
GTGACCTT---

Original motif Consensus sequence: CTTCTGACCTC

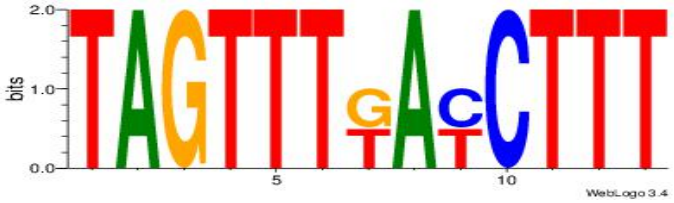
Reverse complement motif Consensus sequence: GAGGTCAGAAG

Dataset #: 1
Motif ID: 15
Motif name: Motif 15
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 2
Number of overlap: 8
Similarity score: 0.040519

Alignment:
AAAGRTMAAACTA
-AAGGTCAC----

Original motif Consensus sequence: AAAGRTMAAACTA

Reverse complement motif Consensus sequence: TAGTTTYAKCTTT



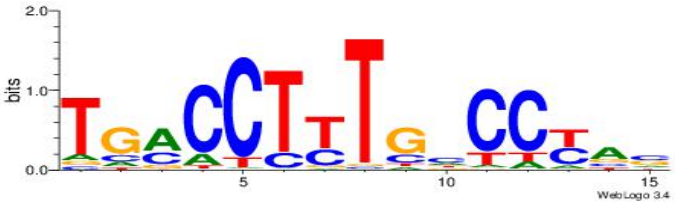
Dataset #:	3
Motif ID:	64
Motif name:	PPARGRXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	7
Number of overlap:	8
Similarity score:	0.0495607

Alignment:

```
BTRGGDCARAGGKCA
-AAGGTCAC------
```

Original motif Consensus sequence: BTRGGDCARAGGKCA

Reverse complement motif Consensus sequence: TGRCCTKTGHCCK



Dataset #:	1
Motif ID:	24

Motif name:	Motif 24
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	8
Similarity score:	0.0539119

Alignment:

```
TTWATGWCTTT
---GTGACCTT
```

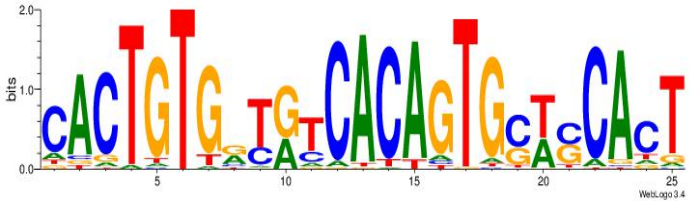
Original motif Consensus sequence: AAAGWCATWAA

Reverse complement motif Consensus sequence: TTWATGWCTTT

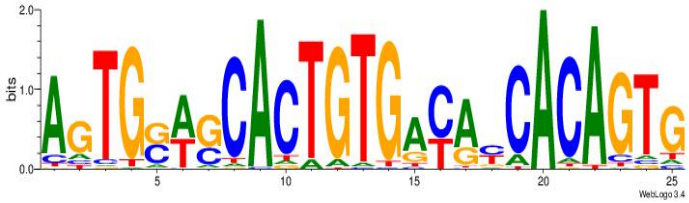
Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	7
Number of overlap:	8
Similarity score:	0.0557243

Alignment:
CACTGTGRTRTCACAGTGSWSCACT
------AAGGTCAC----------

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG

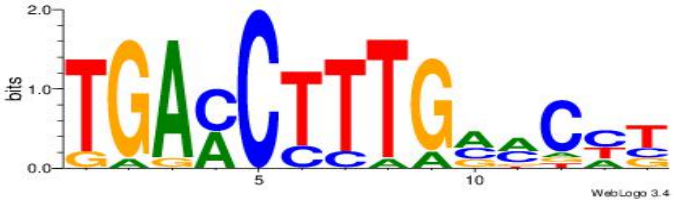


Dataset #:	3
Motif ID:	52
Motif name:	NR2F1
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	7
Number of overlap:	8
Similarity score:	0.0564874

Alignment:
AKGYYCAAAGRTCA
------AAGGTCAC

Original motif Consensus sequence: TGAMCTTTGMMCYT

Reverse complement motif Consensus sequence: AKGYYCAAAGRTCA

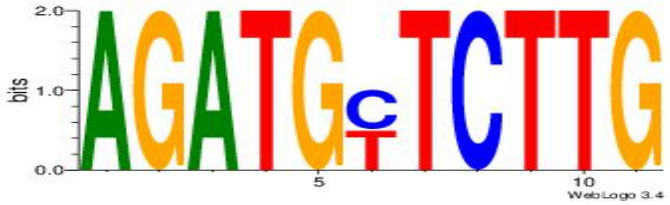


Dataset #:	1
Motif ID:	35
Motif name:	Motif 35
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	8
Similarity score:	0.0566591

Alignment:

```
AGATGYTCTTG
-GTGACCTT--
```

Original motif Consensus sequence: AGATGYTCTTG



Reverse complement motif Consensus sequence: CAAGAKCATCT

Dataset #: 3 Motif ID: 62 Motif name: RORA_1

Original motif Consensus sequence: AWVDAGGTCA

Reverse complement motif Consensus sequence: TGACCTDVWT

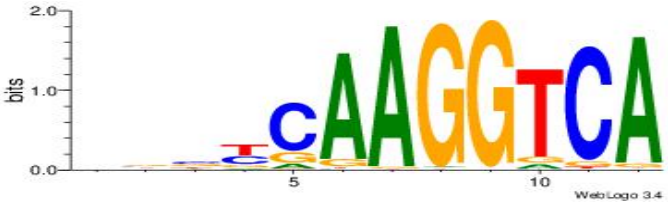
Best Matches for Motif ID 62 (Highest to Lowest)

Dataset #:	3
Motif ID:	54
Motif name:	Esrrb
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	10
Similarity score:	0.053151

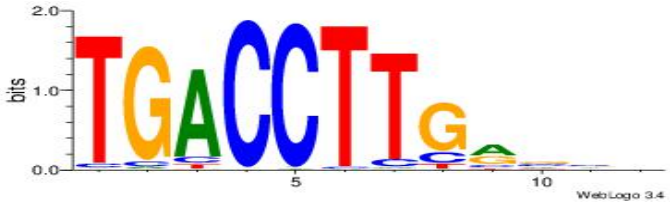
Alignment:

```
VBBYCAAGGTCA
--AWVDAGGTCA
```

Original motif Consensus sequence: VBBYCAAGGTCA



Reverse complement motif Consensus sequence: TGACCTTGMBBB

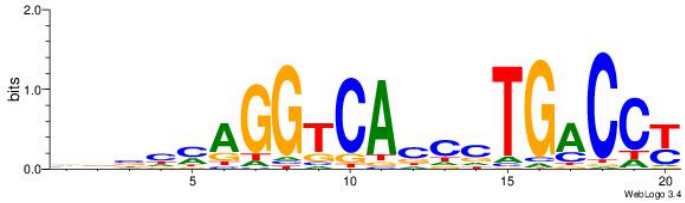


Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	10
Similarity score:	0.0655351

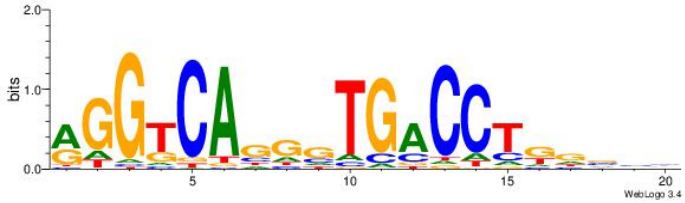
Alignment:

```
MGGTCAGGGTGACCTRDBHV
---------TGACCTDVWT-
```

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

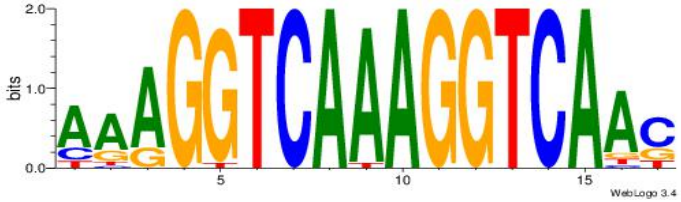


Dataset #:	3
Motif ID:	60
Motif name:	NR1H2RXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	6

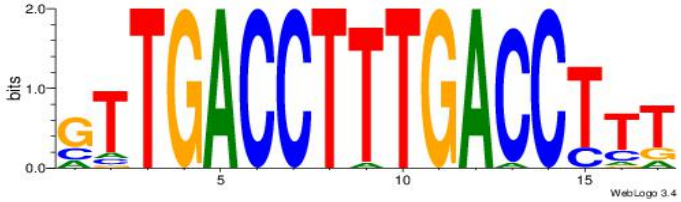
Number of overlap: 10
Similarity score: 0.078

Alignment:
AAAGGTCAAAGGTCAAC
-----AWVDAGGTCA--

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC



Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT

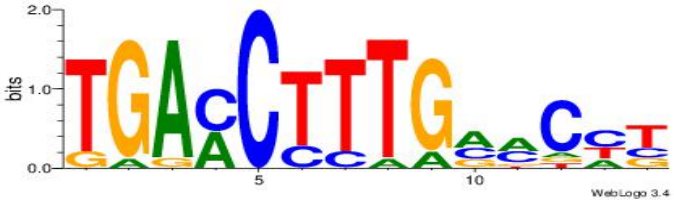


Dataset #: 3
Motif ID: 52
Motif name: NR2F1
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 5
Number of overlap: 10
Similarity score: 0.0892308

Alignment:
TGAMCTTTGMMCYT
----TGACCTDVWT

Original motif Consensus sequence: TGAMCTTTGMMCYT

Reverse complement motif Consensus sequence: AKGYYCAAAGRTC



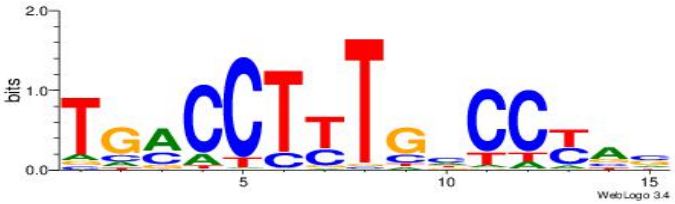
Dataset #:	3
Motif ID:	64
Motif name:	PPARGRXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	10
Similarity score:	0.09043

Alignment:

```
BTRGGDCARAGGKCA
-----AWVDAGGTCA
```

Original motif Consensus sequence: BTRGGDCARAGGKCA

Reverse complement motif Consensus sequence: TGRCCTKTGHCCK



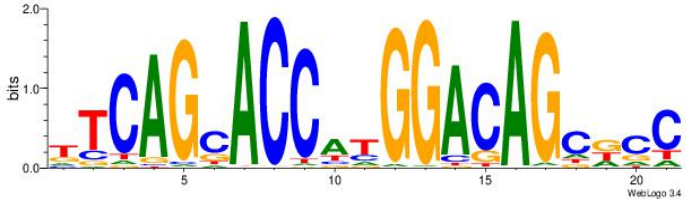
Dataset #:	3
Motif ID:	57

Motif name:	REST
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	7
Number of overlap:	10
Similarity score:	0.0993108

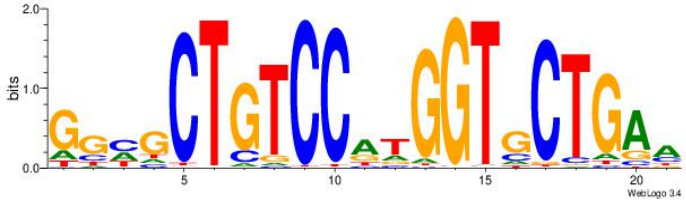
Alignment:

```
TTCAGCACCATGGACAGCKCC
------AWVDAGGTCA-----
```

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



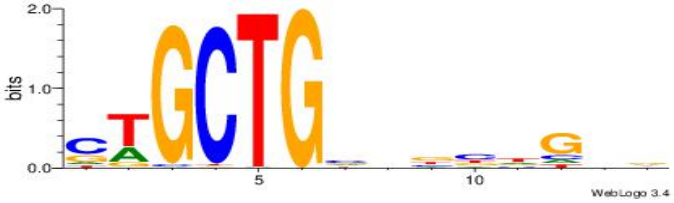
Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA



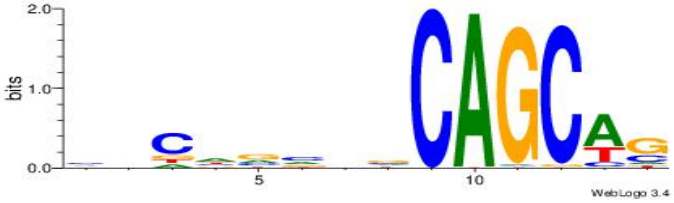
Dataset #:	5
Motif ID:	88
Motif name:	TFF11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	10
Similarity score:	0.103528

Alignment:
CTGCTGBDBBDGBD
----TGACCTDVWT

Original motif Consensus sequence: CTGCTGBDBBDGBD



Reverse complement motif Consensus sequence: HVCDBBDBCAGCA

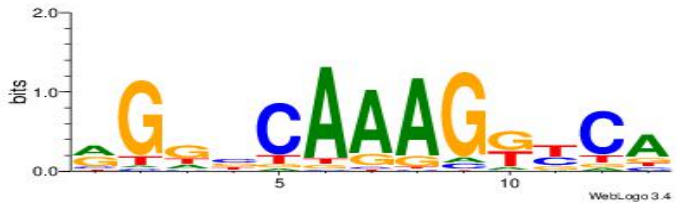


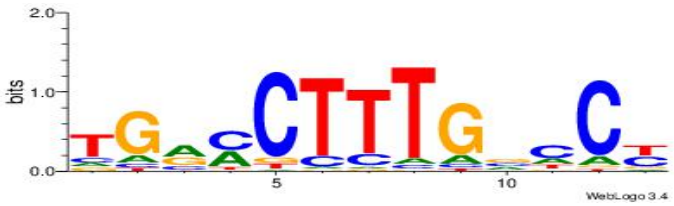
Dataset #:	3
Motif ID:	51
Motif name:	HNF4A
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	4
Number of overlap:	10
Similarity score:	0.10409

Alignment:
RGGBCAAAGKYCA
---AWVDAGGTCA

Original motif Consensus sequence: RGGBCAAAGKYCA

Reverse complement motif Consensus sequence: TGMYCTTTGBCCK



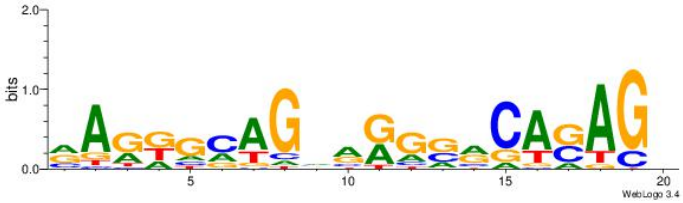


Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	5
Number of overlap:	10
Similarity score:	0.106859

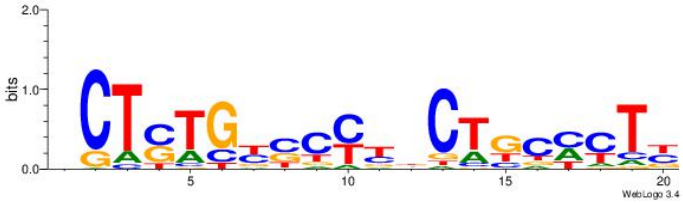
Alignment:

```
RAGKGMAGVRRGSRCASAGV
------AWVDAGGTCA----
```

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK



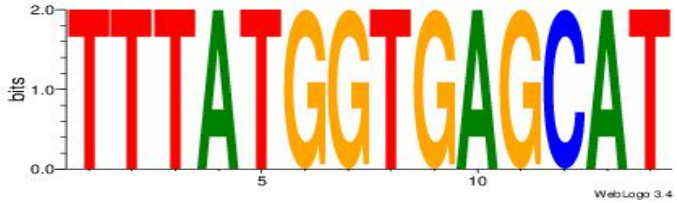
Dataset #:	1

Motif ID:	22
Motif name:	Motif 22
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	5
Number of overlap:	10
Similarity score:	0.111

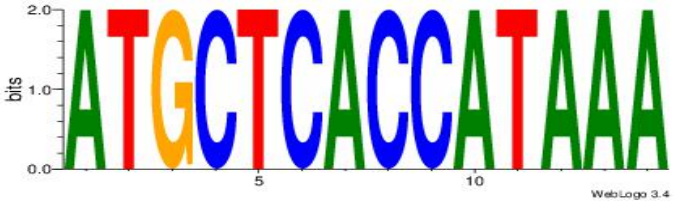
Alignment:

```
ATGCTCACCATAAA
----TGACCTDVWT
```

Original motif Consensus sequence: TTTATGGTGAGCAT

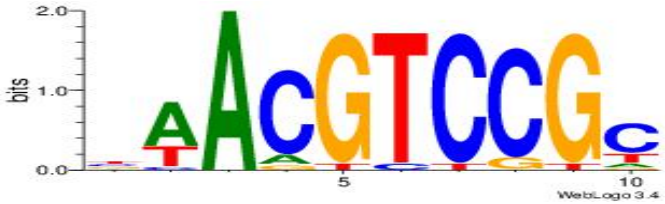


Reverse complement motif Consensus sequence: ATGCTCACCATAA



Dataset #: 3 Motif ID: 63 Motif name: MIZF

Original motif Consensus sequence: BAACGTCCGC



Reverse complement motif Consensus sequence: GCGGACGTTV

Best Matches for Motif ID 63 (Highest to Lowest)

Dataset #:	1
Motif ID:	18
Motif name:	Motif 18
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	10
Similarity score:	0.0591071

Alignment:

```
CAAAGTCCAGC
BAACGTCCGC-
```

Original motif Consensus sequence: CAAAGTCCAGC

Reverse complement motif Consensus sequence: GCTGGACTTTG

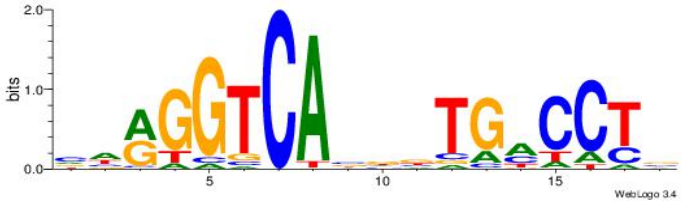
Dataset #:	3
Motif ID:	59
Motif name:	ESR2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement

Direction:	Backward
Position number:	1
Number of overlap:	10
Similarity score:	0.0605777

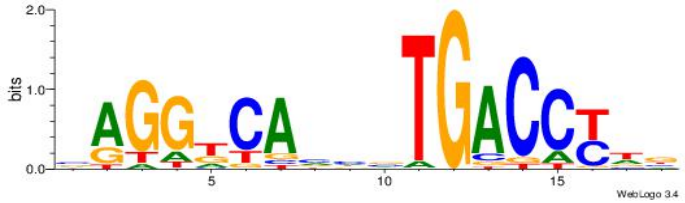
Alignment:

```
BAGGYCABHBTGACCKHV
--------GCGGACGTTV
```

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB



Reverse complement motif Consensus sequence: BAGGYCABHBTGACCKHV

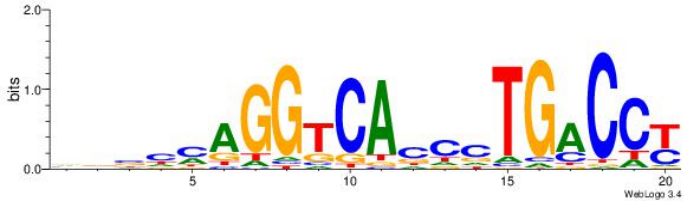


Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	8
Number of overlap:	10
Similarity score:	0.0614567

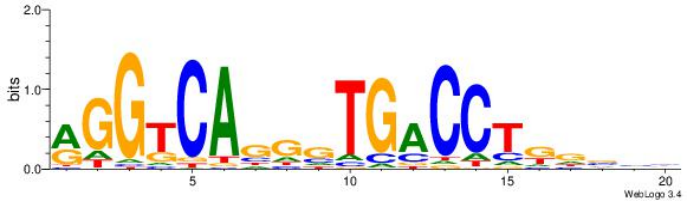
Alignment:

```
VDBHMAGGTCACCCTGACCY
---BAACGTCCGC-------
```

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

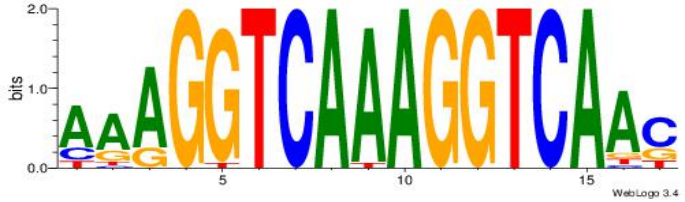


Dataset #:	3
Motif ID:	60
Motif name:	NR1H2RXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	10
Similarity score:	0.0646071

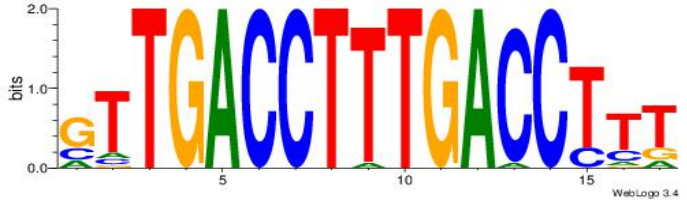
Alignment:

```
AAAGGTCAAAGGTCAAC
-------BAACGTCCGC
```

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC



Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT



Dataset #:	4
Motif ID:	82
Motif name:	gCGCGCsCgsG
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	10
Similarity score:	0.0651598

Alignment:

```
GCGCGCSCGCG
BAACGTCCGC-
```

Original motif Consensus sequence: GCGCGCSCGCG

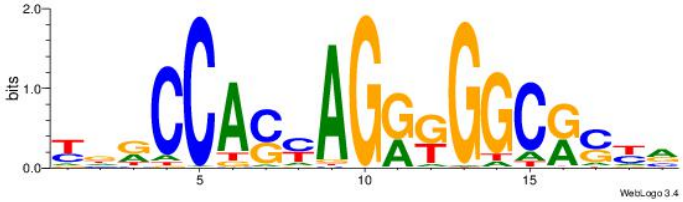
Reverse complement motif Consensus sequence: CGCGSGCGCGC

Dataset #:	3
Motif ID:	66
Motif name:	CTCF
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	10
Number of overlap:	10

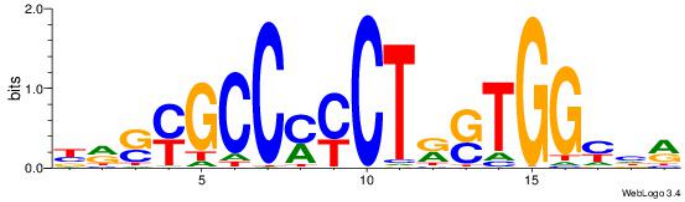
Similarity score: 0.0697767

Alignment:
BMSMGCCYMCTKSTGGMHM
BAACGTCCGC---------

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM

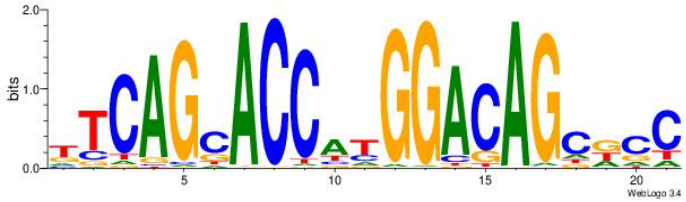


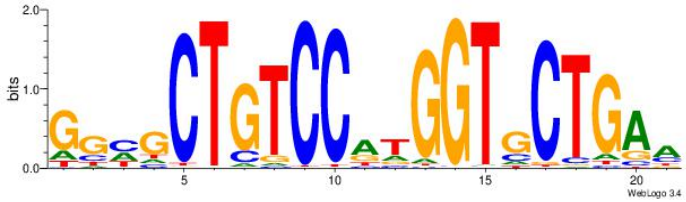
Dataset #: 3
Motif ID: 57
Motif name: REST
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 3
Number of overlap: 10
Similarity score: 0.0708149

Alignment:
GGYGCTGTCCATGGTGCTGAA
---------BAACGTCCGC--

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC

Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA



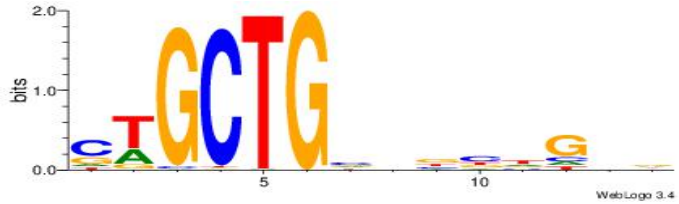


Dataset #:	5
Motif ID:	88
Motif name:	TFF11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	10
Similarity score:	0.0753571

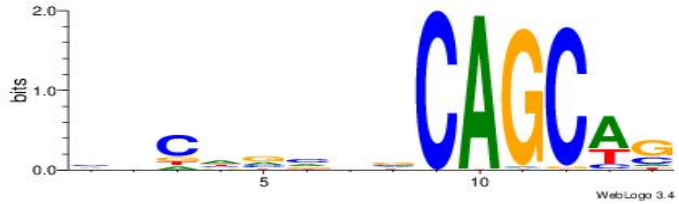
Alignment:

```
CTGCTGBDBBDGBD
--GCGGACGTTV--
```

Original motif Consensus sequence: CTGCTGBDBBDGBD



Reverse complement motif Consensus sequence: HVCDBBDBCAGCA



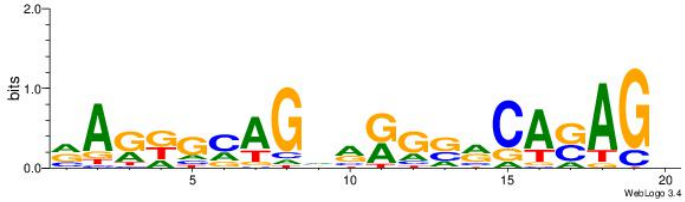
Dataset #:	5
Motif ID:	93

Motif name:	TFM12
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	7
Number of overlap:	10
Similarity score:	0.0780684

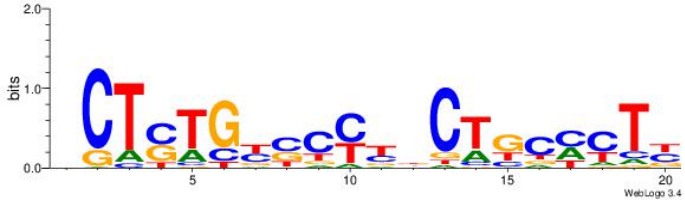
Alignment:

```
VCTSTGKSCMKBCTRCYCTK
------BAACGTCCGC----
```

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



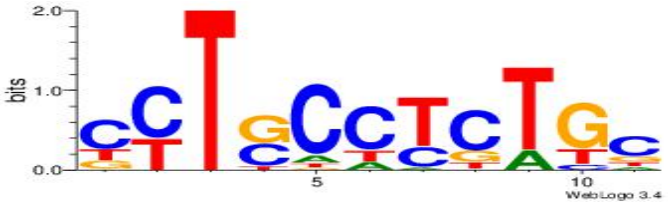
Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK



Dataset #:	1
Motif ID:	1
Motif name:	Motif 1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	10
Similarity score:	0.0797585

Alignment:
CYTSCCTCTGC
-BAACGTCCGC

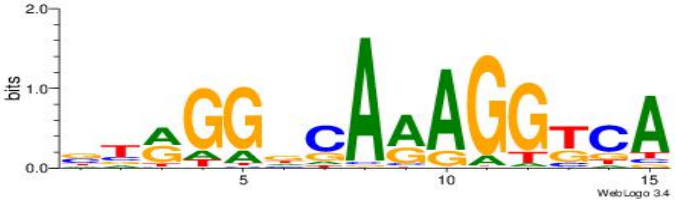
Original motif Consensus sequence: CYTSCCTCTGC



Reverse complement motif Consensus sequence: GCAGAGGSAKG

Dataset #: 3 Motif ID: 64 Motif name: PPARGRXRA

Original motif Consensus sequence: BTRGGDCARAGGKCA



Reverse complement motif Consensus sequence: TGRCCTKTGHCCK

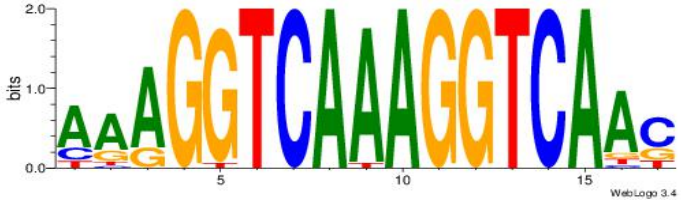
Best Matches for Motif ID 64 (Highest to Lowest)

Dataset #:	3
Motif ID:	60
Motif name:	NR1H2RXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3

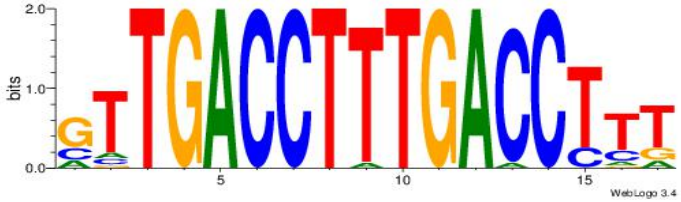
Number of overlap: 15
Similarity score: 0.0442974

Alignment:
AAAGGTCAAAGGTCAAC
BTRGGDCARAGGKCA--

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC



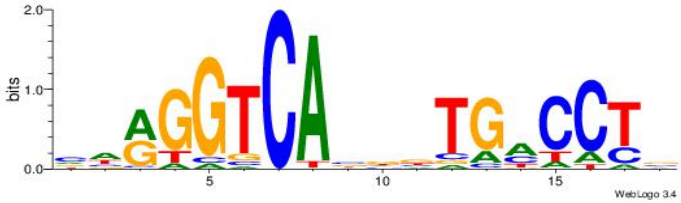
Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT



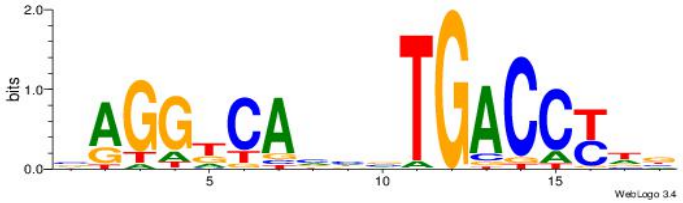
Dataset #: 3
Motif ID: 59
Motif name: ESR2
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 4
Number of overlap: 15
Similarity score: 0.0602408

Alignment:
VHRGGTCABDBTGMCCTB
BTRGGDCARAGGKCA---

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB



Reverse complement motif Consensus sequence: BAGGYCABHBTGACCKHV

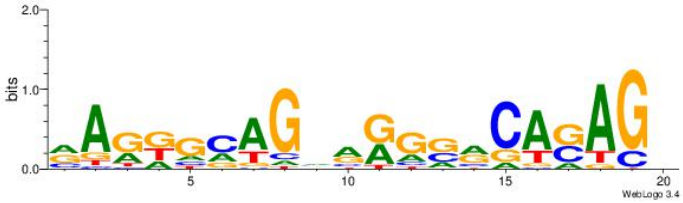


Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	5
Number of overlap:	15
Similarity score:	0.0615418

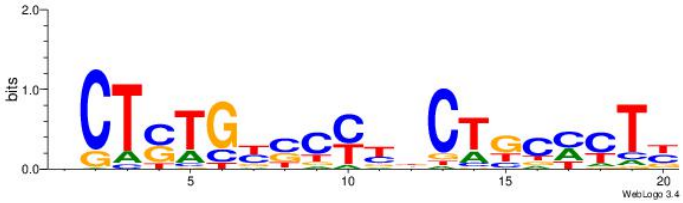
Alignment:

```
RAGKGMAGVRRGSRCASAGV
-BTRGGDCARAGGKCA----
```

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK

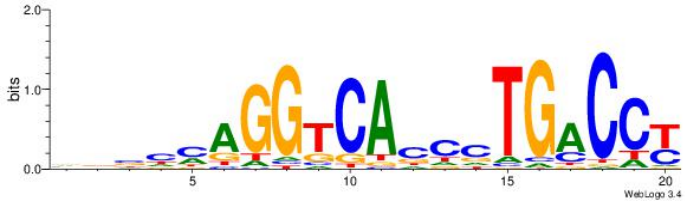


Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	15
Similarity score:	0.0723092

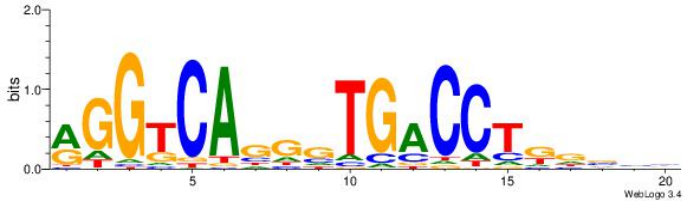
Alignment:

```
VDBHMAGGTCACCCTGACCY
---BTRGGDCARAGGKCA--
```

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

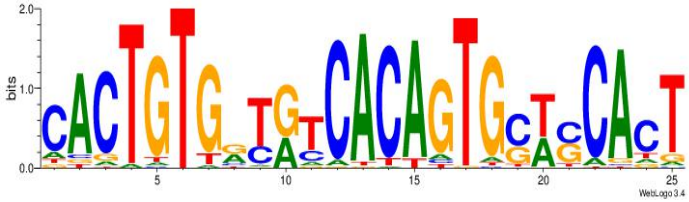


Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	6

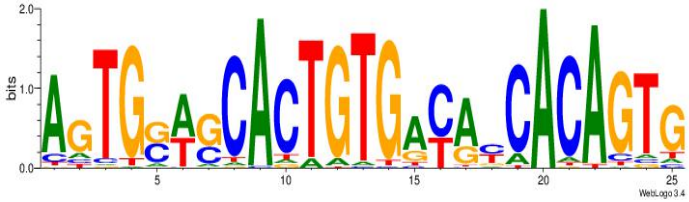
Number of overlap: 15
Similarity score: 0.0741352

Alignment:
CACTGTGRTRTCACAGTGSWSCACT
-----BTRGGDCARAGGKCA-----

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



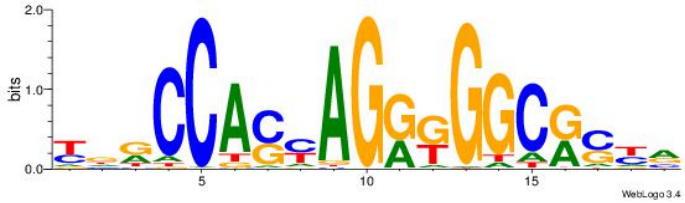
Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG



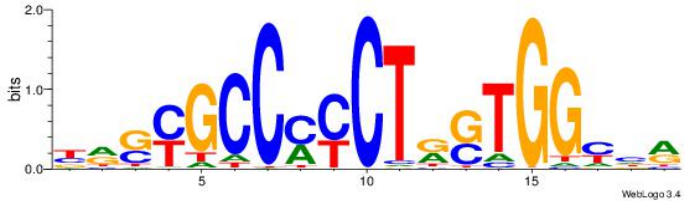
Dataset #: 3
Motif ID: 66
Motif name: CTCF
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 2
Number of overlap: 15
Similarity score: 0.0786357

Alignment:
YDRCCASYAGRKGGCRSYV
-BTRGGDCARAGGKCA---

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM

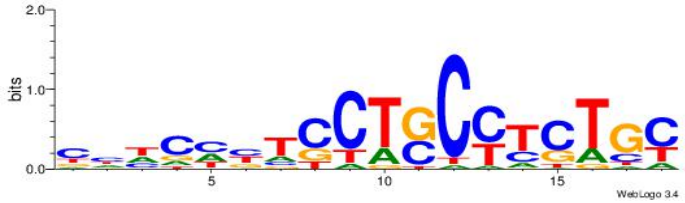


Dataset #:	5
Motif ID:	90
Motif name:	TFM2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	4
Number of overlap:	15
Similarity score:	0.0790185

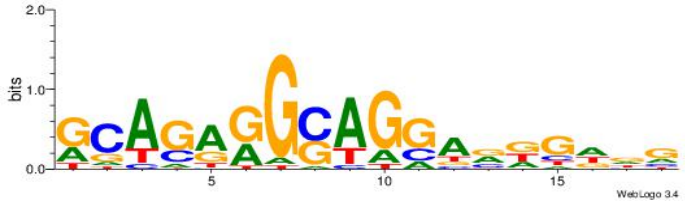
Alignment:

```
CHHCHBTCCTSCYTCTGC
TGRCCTKTGHCCKAB---
```

Original motif Consensus sequence: CHHCHBTCCTSCYTCTGC



Reverse complement motif Consensus sequence: GCAGAKGSAGGABDGHDG

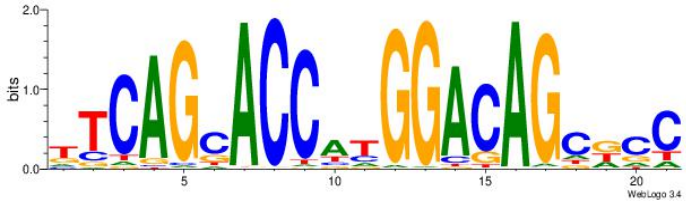


Dataset #:	3
Motif ID:	57
Motif name:	REST
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	15
Similarity score:	0.0796159

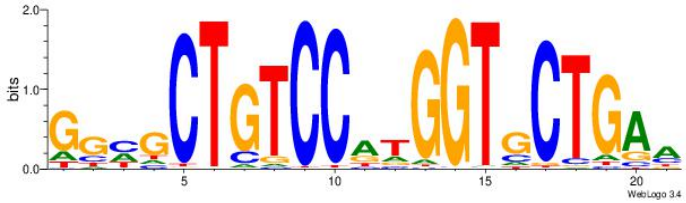
Alignment:

```
TTCAGCACCATGGACAGCKCC
-BTRGGDCARAGGKCA-----
```

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA

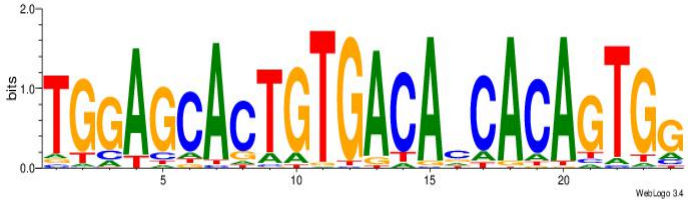


Dataset #:	4
Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	7

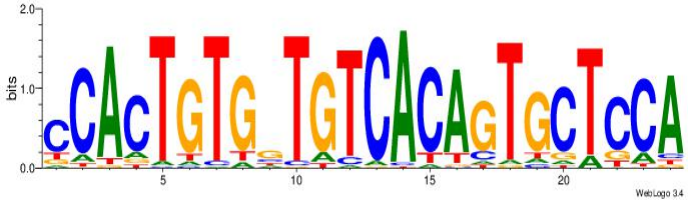
Number of overlap: 15
Similarity score: 0.0813414

Alignment:
CCACTGTGVTGTCACAGTGCTCCA
------BTRGGDCARAGGKCA---

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



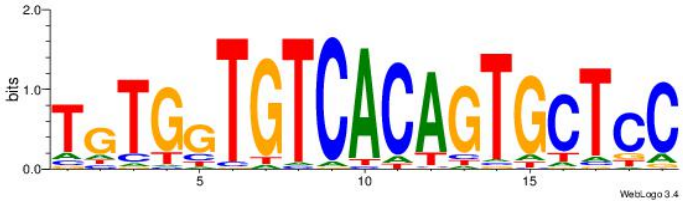
Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA



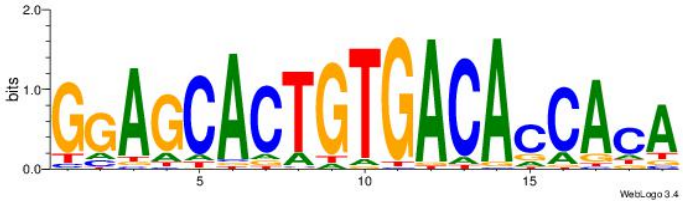
Dataset #: 4
Motif ID: 67
Motif name: TgTGgTGTCACAGTGCTCC
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 3
Number of overlap: 15
Similarity score: 0.0818655

Alignment:
TGTGGTGTCACAGTGCTCC
--BTRGGDCARAGGKCA--

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC

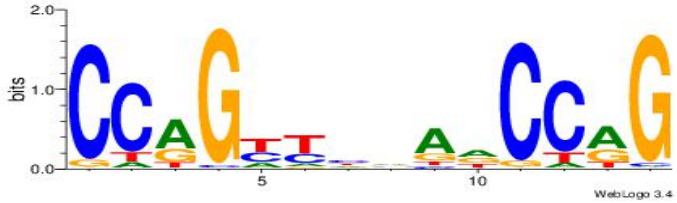


Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA

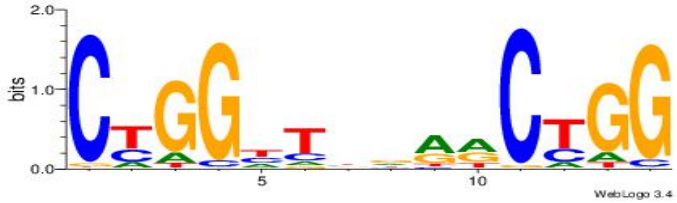


Dataset #: 3 Motif ID: 65 Motif name: Tcfcp2l1

Original motif Consensus sequence: CCAGYYHVADCCRG



Reverse complement motif Consensus sequence: CKGGDTBDMMCT



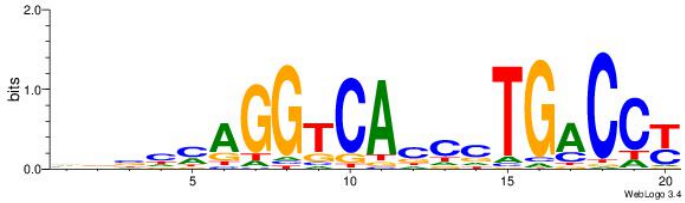
Best Matches for Motif ID 65 (Highest to Lowest)

Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	14
Similarity score:	0.0453398

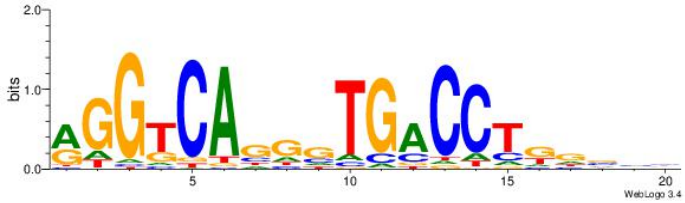
Alignment:

MGGTCAGGGTGACCTRDBHV
---CCAGYYHVADCCRG---

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

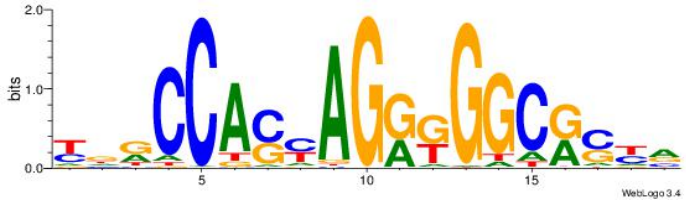


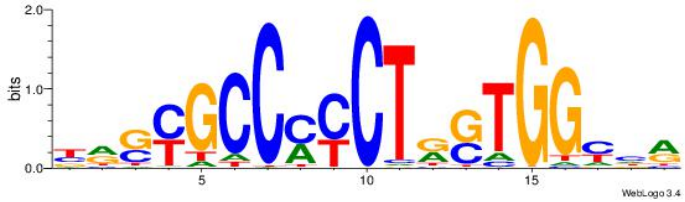
Dataset #:	3
Motif ID:	66
Motif name:	CTCF
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	4
Number of overlap:	14
Similarity score:	0.0491111

Alignment:
YDRCCASYAGRKGGCRSYV
---CCAGYYHVADCCRG--

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV

Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM

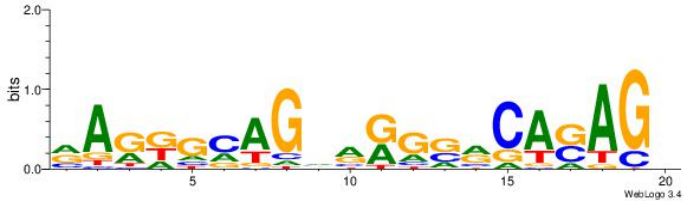




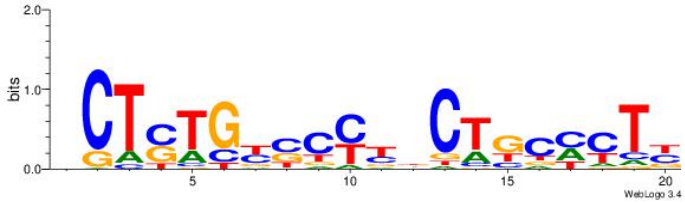
Dataset #: 5
Motif ID: 93
Motif name: TFM12
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 2
Number of overlap: 14
Similarity score: 0.0502168

Alignment:
VCTSTGKSCMKBCTRCYCTK
-CCAGYYHVADCCRG-----

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



Reverse complement motif Consensus sequence:
VCTSTGKSCMKBCTRCYCTK



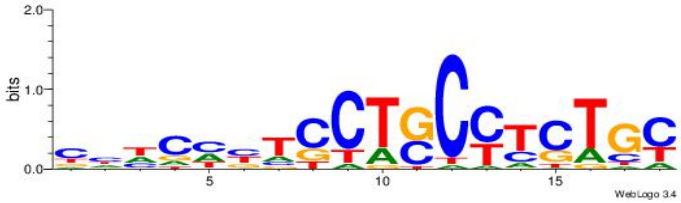
Dataset #: 5

Motif ID:	90
Motif name:	TFM2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	14
Similarity score:	0.0514558

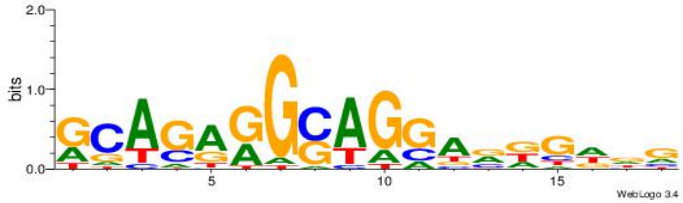
Alignment:

```
GCAGAKGSAGGABDGHDG
----CKGGDTBDMMCTGG
```

Original motif Consensus sequence: CHHCHBTCCTSCYTCTGC



Reverse complement motif Consensus sequence: GCAGAKGSAGGABDGHDG

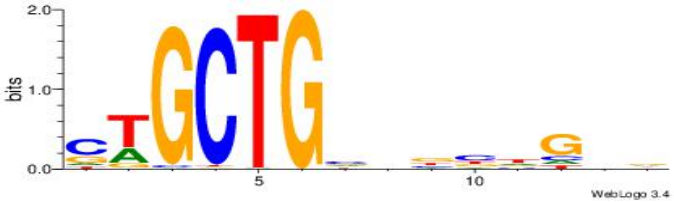


Dataset #:	5
Motif ID:	88
Motif name:	TFF11
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	14

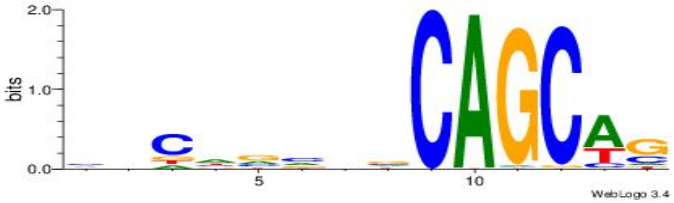
Similarity score: 0.0546308

Alignment:
HVCDBBDBCAGCAG
CCAGYYHVADCCRG

Original motif Consensus sequence: CTGCTGBDBBDGBD



Reverse complement motif Consensus sequence: HVCDBBDBCAGCA

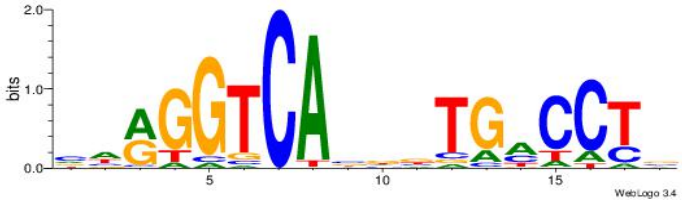


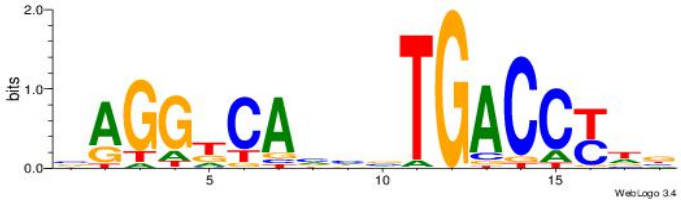
Dataset #: 3
Motif ID: 59
Motif name: ESR2
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Backward
Position number: 1
Number of overlap: 14
Similarity score: 0.0568174

Alignment:
VHRGGTCABDBTGMCCTB
----CKGGDTBDMMCTGG

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB

Reverse complement motif Consensus sequence: BAGGYCABHBTGACCKHV



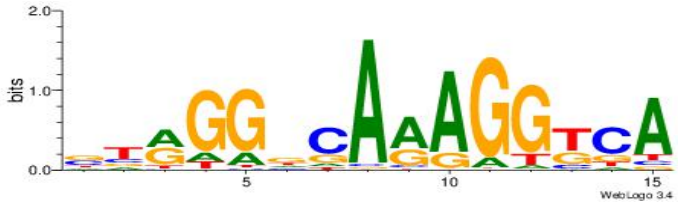


Dataset #:	3
Motif ID:	64
Motif name:	PPARGRXRA
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	14
Similarity score:	0.0569399

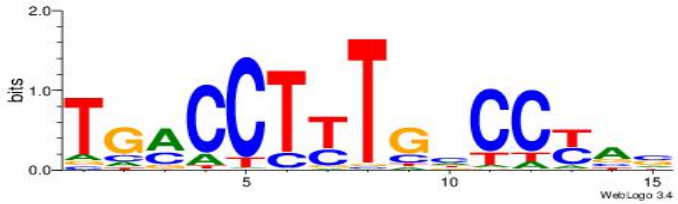
Alignment:

```
TGRCCTKTGHCCKAB
-CKGGDTBDMMCTGG
```

Original motif Consensus sequence: BTRGGDCARAGGKCA



Reverse complement motif Consensus sequence: TGRCCTKTGHCCK



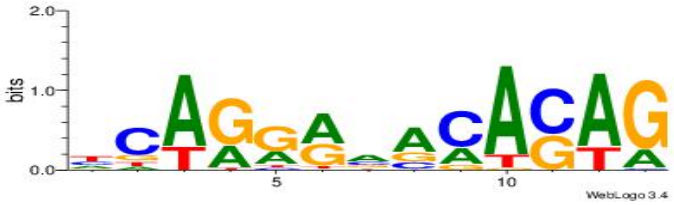
Dataset #:	1
Motif ID:	3

Motif name:	Motif 3
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	13
Similarity score:	0.542892

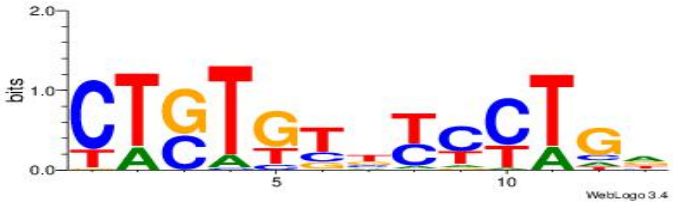
Alignment:

```
CTSTGTBKMCTGH-
CKGGDTBDMMCTGG
```

Original motif Consensus sequence: HCAGRRVACASAG



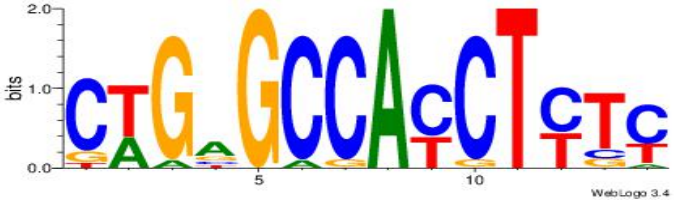
Reverse complement motif Consensus sequence: CTSTGTBKMCTGH



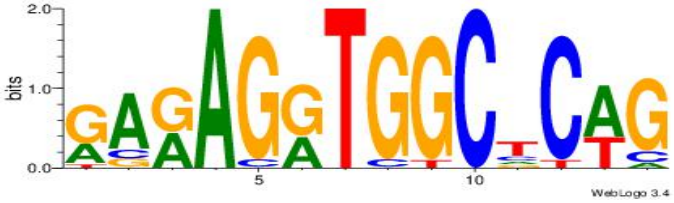
Dataset #:	1
Motif ID:	5
Motif name:	Motif 5
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	13
Similarity score:	0.546848

Alignment:
GAKAGKTGGCTCWG-
-CKGGDTBDMMCTGG

Original motif Consensus sequence: CWGAGCCAYCTYTC



Reverse complement motif Consensus sequence: GAKAGKTGGCTCW

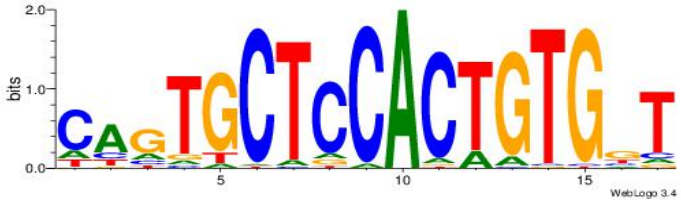


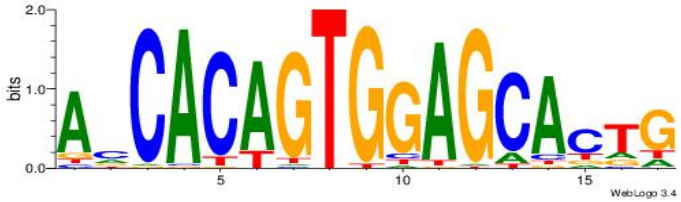
Dataset #:	4
Motif ID:	70
Motif name:	CagTGCTCCACTGTGgT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	5
Number of overlap:	13
Similarity score:	0.551995

Alignment:
ABCACAGTGGAGCACTG-
----CKGGDTBDMMCTGG

Original motif Consensus sequence: CAGTGCTCCACTGTGBT

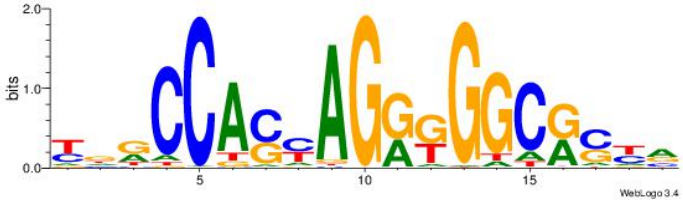
Reverse complement motif Consensus sequence: ABCACAGTGGAGCACTG



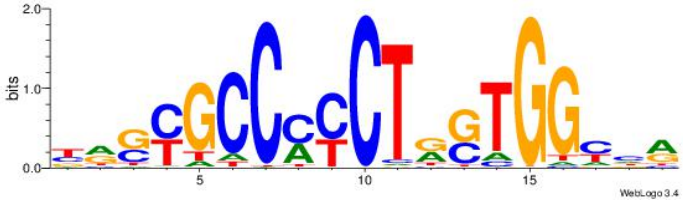


Dataset #: 3 **Motif ID: 66** **Motif name: CTCF**

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM



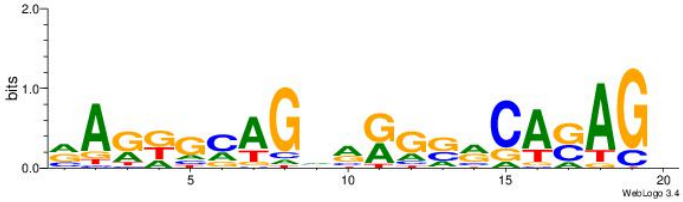
Best Matches for Motif ID 66 (Highest to Lowest)

Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	19
Similarity score:	0.066318

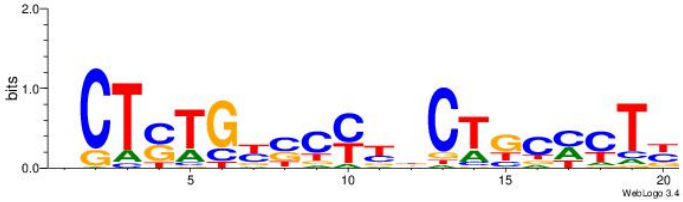
Alignment:

VCTSTGKSCMKBCTRCYCTK
BMSMGCCYMCTKSTGGMHM-

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK

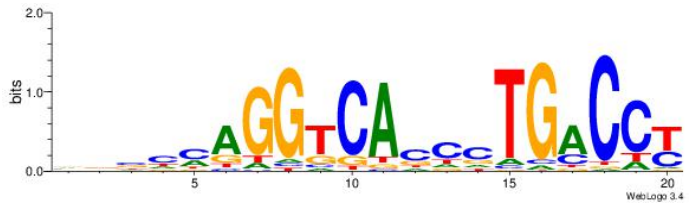


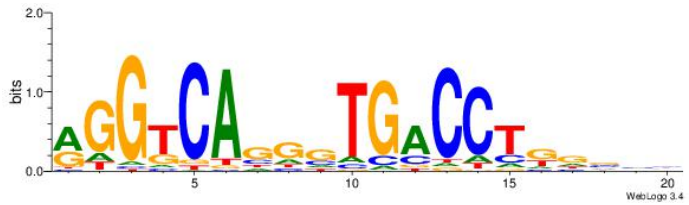
Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	19
Similarity score:	0.0687764

Alignment:
MGGTCAGGGTGACCTRDBHV
-YDRCCASYAGRKGGCRSYV

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY

Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV



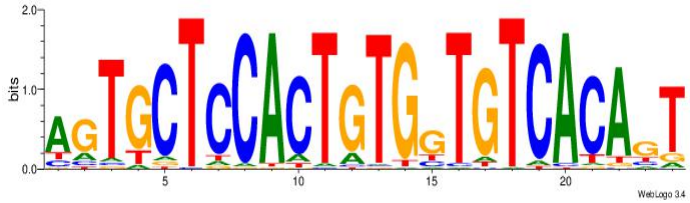


Dataset #:	4
Motif ID:	77
Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	7
Number of overlap:	18
Similarity score:	0.566688

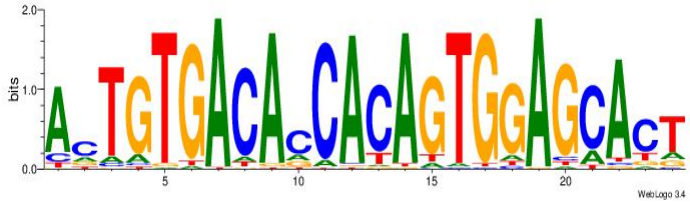
Alignment:

```
ACTGTGACACCACAGTGGAGCACT-
------YDRCCASYAGRKGGCRSYV
```

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT



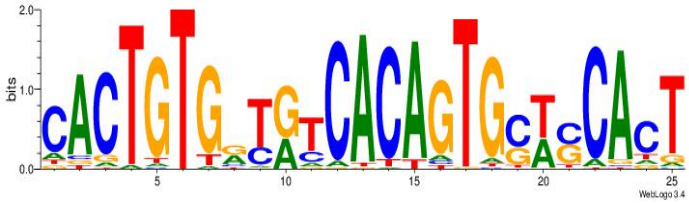
Dataset #:	4

Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	8
Number of overlap:	18
Similarity score:	0.56949

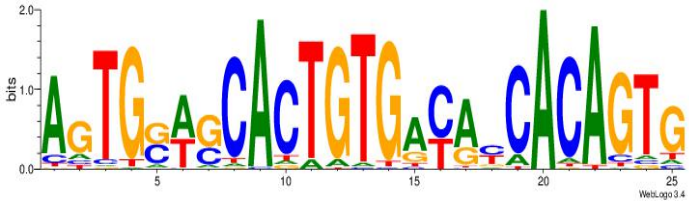
Alignment:

```
-AGTGSWSCACTGTGAMAMCACAGTG
BMSMGCCYMCTKSTGGMHM-------
```

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG

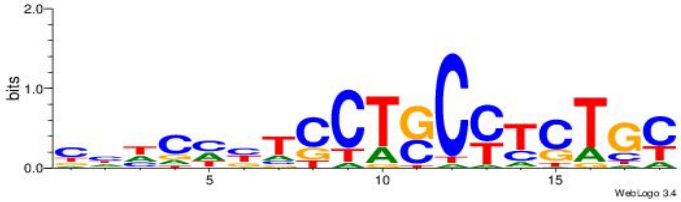


Dataset #:	5
Motif ID:	90
Motif name:	TFM2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	18

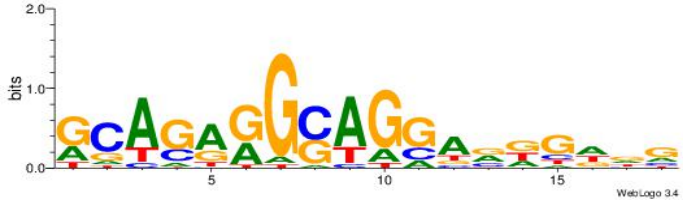
Similarity score: 0.571172

Alignment:
-CHHCHBTCCTSCYTCTGC
BMSMGCCYMCTKSTGGMHM

Original motif Consensus sequence: CHHCHBTCCTSCYTCTGC



Reverse complement motif Consensus sequence: GCAGAKGSAGGABDGHDG

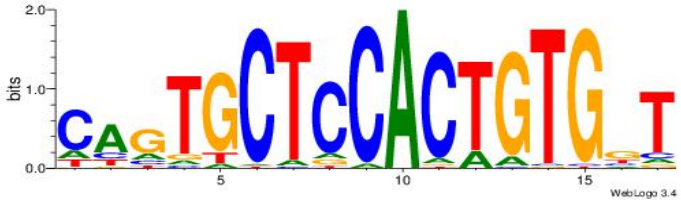


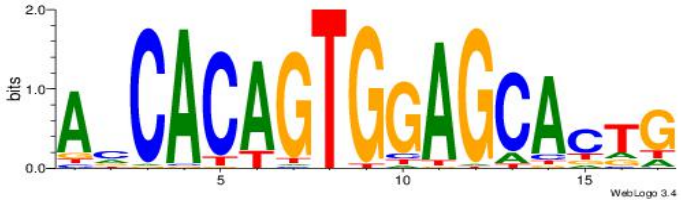
Dataset #: 4
Motif ID: 70
Motif name: CagTGCTCCACTGTGgT
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 1
Number of overlap: 17
Similarity score: 1.05559

Alignment:
--ABCACAGTGGAGCACTG
YDRCCASYAGRKGGCRSYV

Original motif Consensus sequence: CAGTGCTCCACTGTGBT

Reverse complement motif Consensus sequence: ABCACAGTGGAGCACTG



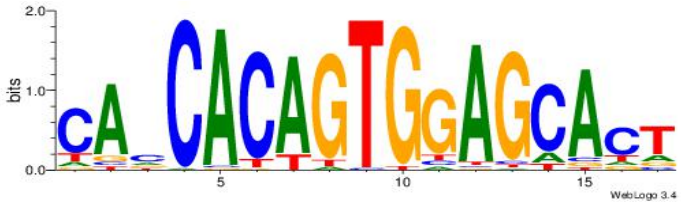


Dataset #:	4
Motif ID:	76
Motif name:	CAcCACAGTGGAGCAct
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	15
Similarity score:	2.06507

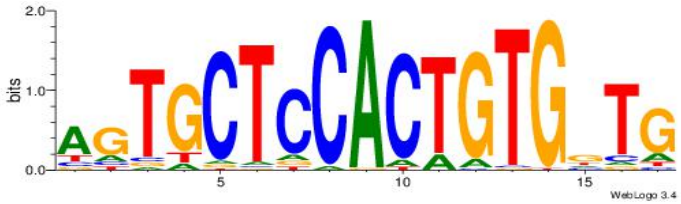
Alignment:

```
----CAHCACAGTGGAGCACT
YDRCCASYAGRKGGCRSYV--
```

Original motif Consensus sequence: CAHCACAGTGGAGCACT



Reverse complement motif Consensus sequence: AGTGCTCCACTGTGDTG



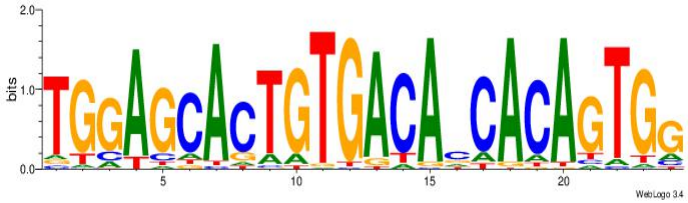
Dataset #: 4

Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	10
Number of overlap:	15
Similarity score:	2.07021

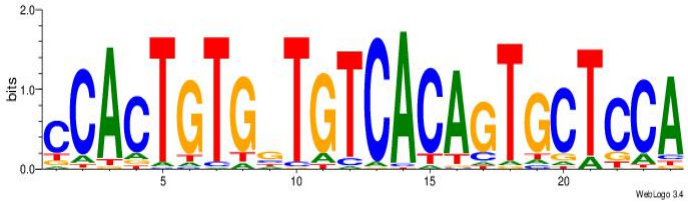
Alignment:

```
TGGAGCACTGTGACAVCACAGTGG----
---------YDRCCASYAGRKGGCRSYV
```

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

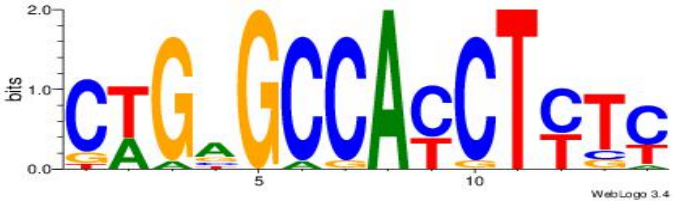


Dataset #:	1
Motif ID:	5
Motif name:	Motif 5
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	14

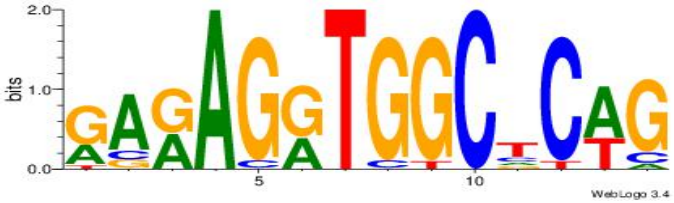
Similarity score: 2.54791

Alignment:
-----CWGAGCCAYCTYTC
BMSMGCCYMCTKSTGGMHM

Original motif Consensus sequence: CWGAGCCAYCTYTC



Reverse complement motif Consensus sequence: GAKAGKTGGCTCW

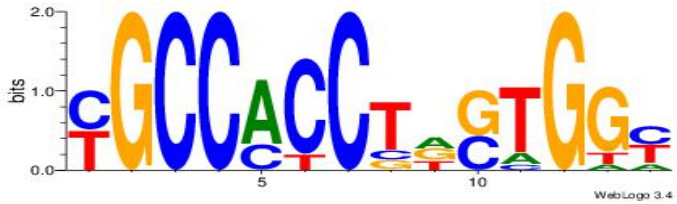


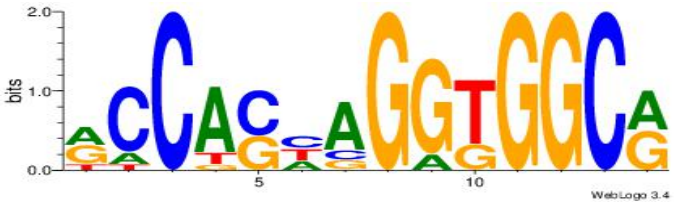
Dataset #:	2
Motif ID:	47
Motif name:	Motif 47
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	14
Similarity score:	2.56483

Alignment:
KCCASDAGGTGGCK-----
YDRCCASYAGRKGGCRSYV

Original motif Consensus sequence: YGCCACCTDSTGGY

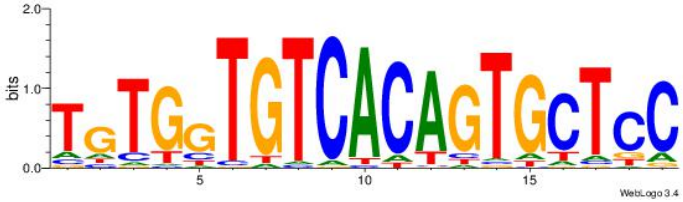
Reverse complement motif Consensus sequence: KCCASDAGGTGGC



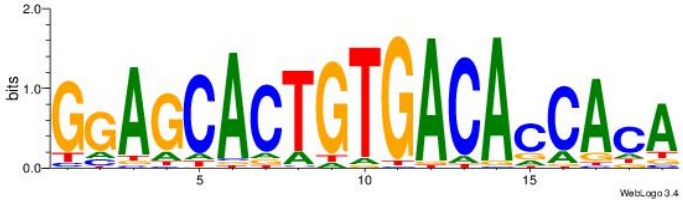


Dataset #: 4 **Motif ID: 67** **Motif name: TgTGgTGTCACAGTGCTCC**

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA



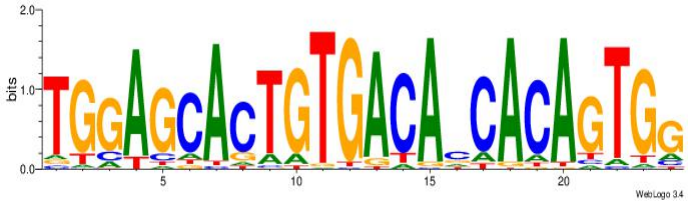
Best Matches for Motif ID 67 (Highest to Lowest)

Dataset #:	4
Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	5
Number of overlap:	19
Similarity score:	0

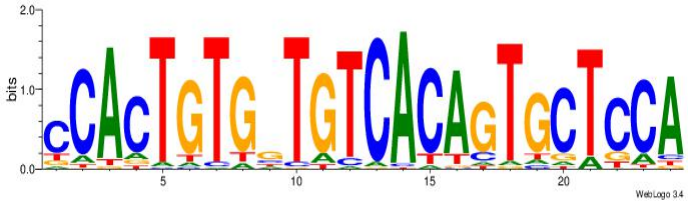
Alignment:

CCACTGTGVTGTCACAGTGCTCCA
----TGTGGTGTCACAGTGCTCC-

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

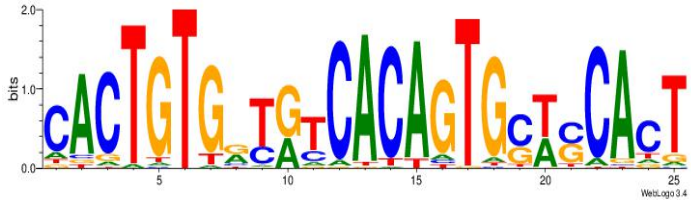


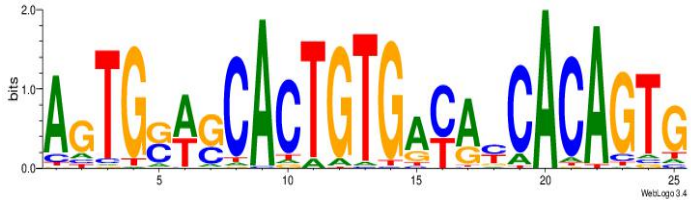
Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	19
Similarity score:	0.0217259

Alignment:
AGTGSWSCACTGTGAMAMCACAGTG
---GGAGCACTGTGACACCACA---

Original motif Consensus sequence: CACTGTGRTRTCACAGTGSWSCACT

Reverse complement motif Consensus sequence: AGTGSWSCACTGTGAMAMCACAGTG

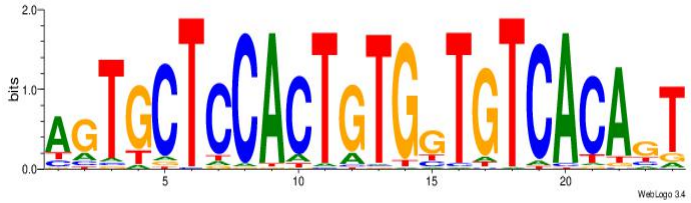




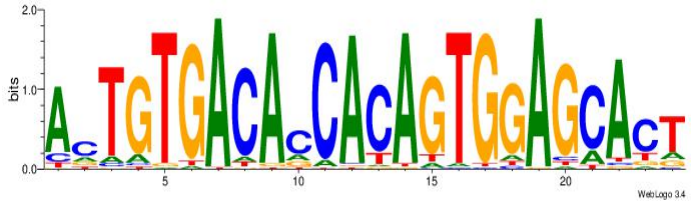
Dataset #: 4
Motif ID: 77
Motif name: AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 4
Number of overlap: 19
Similarity score: 0.074816

Alignment:
ACTGTGACACCACAGTGGAGCACT
--TGTGGTGTCACAGTGCTCC---

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT



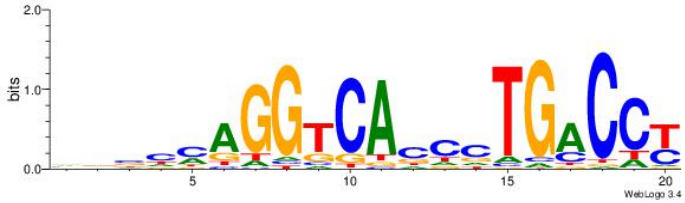
Dataset #: 3

Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	19
Similarity score:	0.0857262

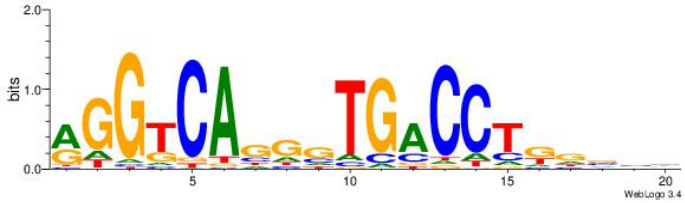
Alignment:

```
VDBHMAGGTCACCCTGACCY
-TGTGGTGTCACAGTGCTCC
```

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

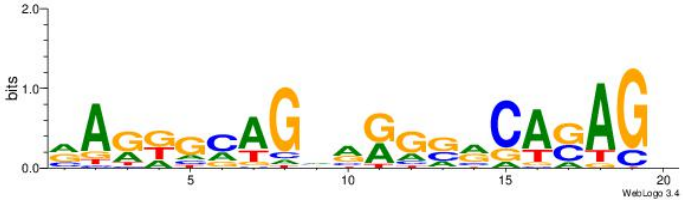


Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	18

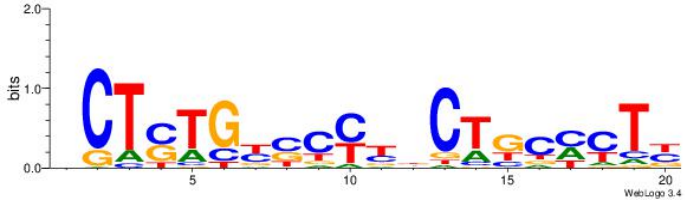
Similarity score: 0.595281

Alignment:
-RAGKGMAGVRRGSRCASAGV
GGAGCACTGTGACACCACA--

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK

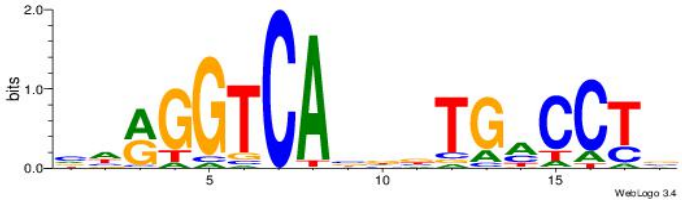


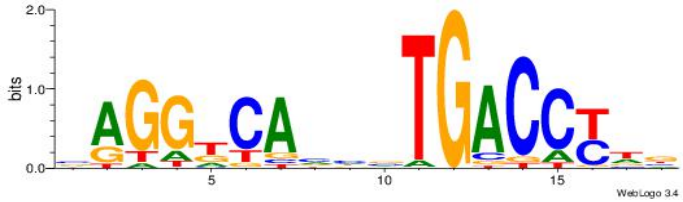
Dataset #: 3
Motif ID: 59
Motif name: ESR2
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 2
Number of overlap: 17
Similarity score: 1.08001

Alignment:
--VHRGGTCABDBTGMCCTB
TGTGGTGTCACAGTGCTCC-

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB

Reverse complement motif Consensus sequence: BAGGYCABHBTGACCKHV



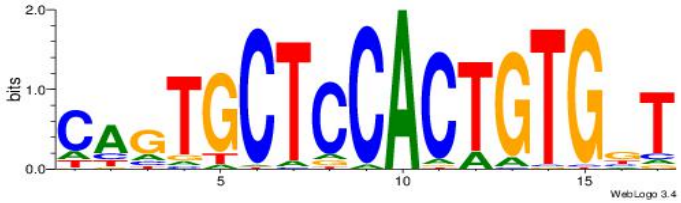


Dataset #:	4
Motif ID:	70
Motif name:	CagTGCTCCACTGTGgT
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	17
Similarity score:	1.08847

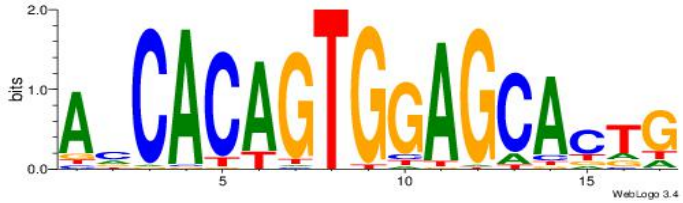
Alignment:

```
CAGTGCTCCACTGTGBT--
TGTGGTGTCACAGTGCTCC
```

Original motif Consensus sequence: CAGTGCTCCACTGTGBT



Reverse complement motif Consensus sequence: ABCACAGTGGAGCACTG



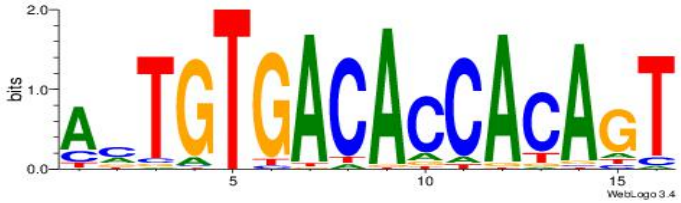
Dataset #: 4

Motif ID:	71
Motif name:	AmTGTGACACCACAGT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	16
Similarity score:	1.59452

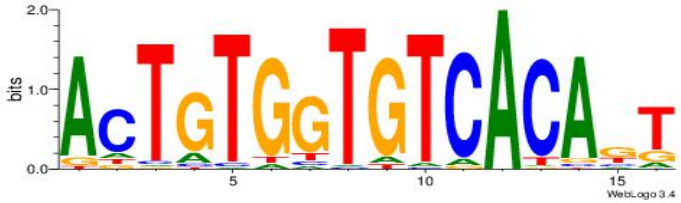
Alignment:

```
ACTGTGGTGTCACART---
GGAGCACTGTGACACCACA
```

Original motif Consensus sequence: AMTGTGACACCACAGT



Reverse complement motif Consensus sequence: ACTGTGGTGTCACART



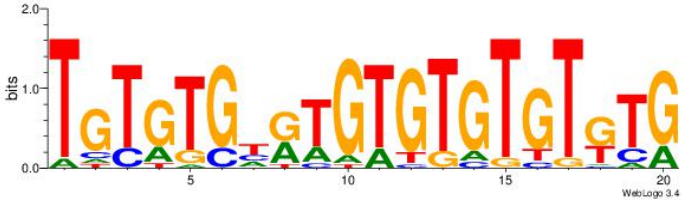
Dataset #:	5
Motif ID:	92
Motif name:	TFM11
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	5
Number of overlap:	16

Similarity score: 1.60014

Alignment:
```
---TGTGTGDKTGTGTGTGTRTG
TGTGGTGTCACAGTGCTCC----
```

Original motif Consensus sequence: CAMACACACACAYDCACACA

Reverse complement motif Consensus sequence: TGTGTGDKTGTGTGTGTRTG

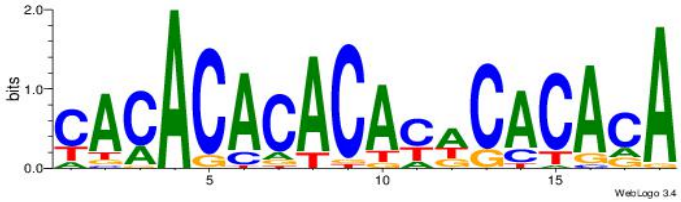


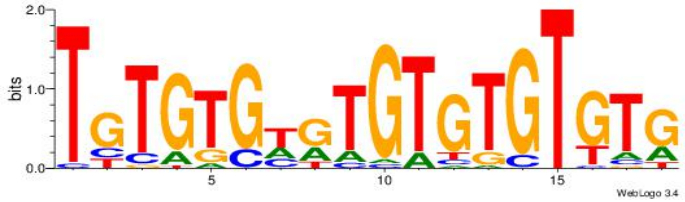
Dataset #:	5
Motif ID:	89
Motif name:	TFM1
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	16
Similarity score:	1.60282

Alignment:
```
---TGTGTGWGTGTGTGTGTG
TGTGGTGTCACAGTGCTCC--
```

Original motif Consensus sequence: CACACACACACWCACACA

Reverse complement motif Consensus sequence: TGTGTGWGTGTGTGTGTG





Dataset #: 4 **Motif ID: 68** **Motif name: sscCCCGCGcs**

Original motif Consensus sequence: BSCCCCGCGBS

Reverse complement motif Consensus sequence: SBCGCGGGGSB

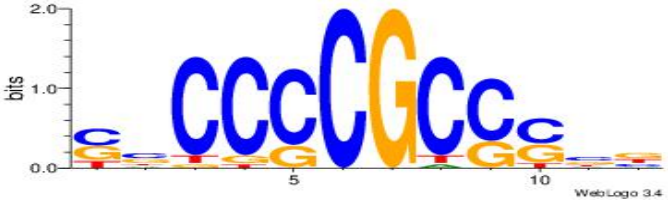
Best Matches for Motif ID 68 (Highest to Lowest)

Dataset #:	4
Motif ID:	74
Motif name:	ssCCCCGCSssk
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0

Alignment:

```
SBCCCCGCCSBB
BSCCCCGCGBS-
```

Original motif Consensus sequence: SBCCCCGCCSBB



Reverse complement motif Consensus sequence: BBSGGCGGGGBS

Dataset #:	4
Motif ID:	82
Motif name:	gCGCGCsCgsG
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.0417227

Alignment:

```
CGCGSGCGCGC
SBCGCGGGGSB
```

Original motif Consensus sequence: GCGCGCSCGCG

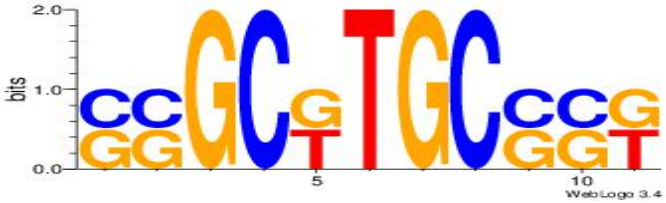
Reverse complement motif Consensus sequence: CGCGSGCGCGC

Dataset #:	4
Motif ID:	78
Motif name:	ssGCkTGCssk
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.0523123

Alignment:

```
SSGCKTGCSSK
BSCCCCGCGBS
```

Original motif Consensus sequence: SSGCKTGCSSK



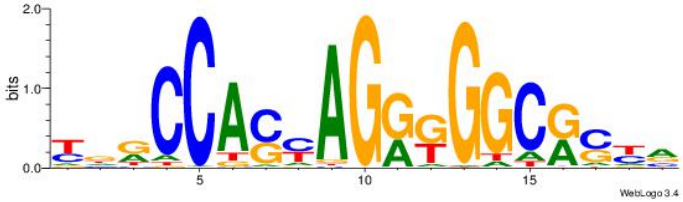
Reverse complement motif Consensus sequence: YSSGCAYGCSS

Dataset #:	3
Motif ID:	66
Motif name:	CTCF
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	7
Number of overlap:	11

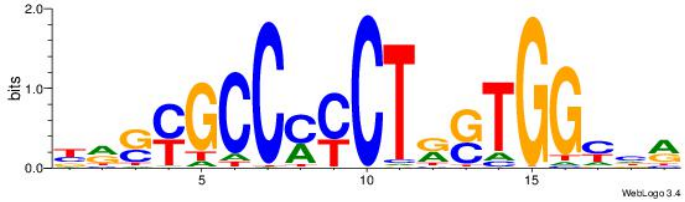
Similarity score: 0.0564004

Alignment:
YDRCCASYAGRKGGCRSYV
--SBCGCGGGGSB------

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



Reverse complement motif Consensus sequence:
BMSMGCCYMCTKSTGGMHM

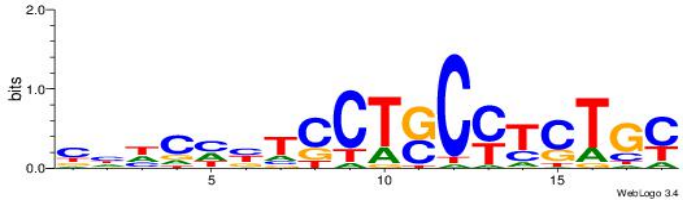


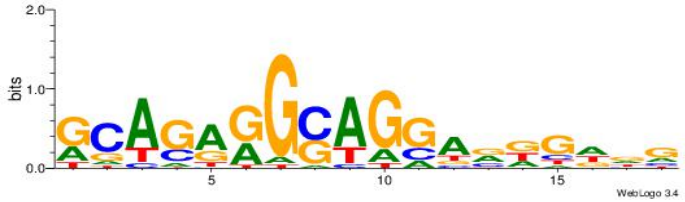
Dataset #: 5
Motif ID: 90
Motif name: TFM2
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 4
Number of overlap: 11
Similarity score: 0.0666605

Alignment:
CHHCHBTCCTSCYTCTGC
----BSCCCCGCGBS---

Original motif Consensus sequence: CHHCHBTCCTSCYTCTGC

Reverse complement motif Consensus sequence:
GCAGAKGSAGGABDGHDG



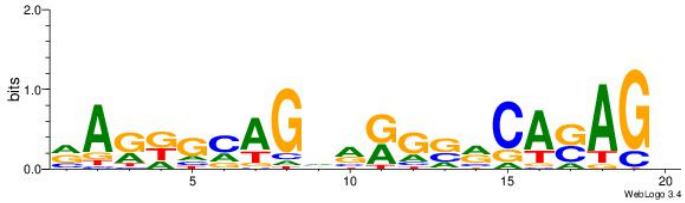


Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	6
Number of overlap:	11
Similarity score:	0.0677432

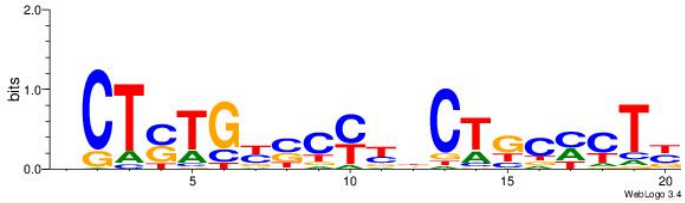
Alignment:

```
RAGKGMAGVRRGSRCASAGV
----SBCGCGGGGSB-----
```

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK



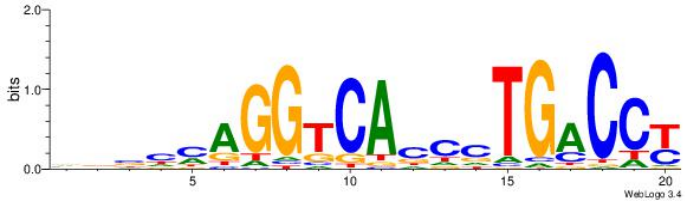
Dataset #:	3

Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.0734979

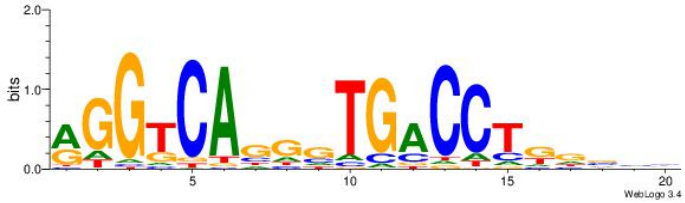
Alignment:

```
MGGTCAGGGTGACCTRDBHV
BSCCCCGCGBS---------
```

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV



Dataset #:	4
Motif ID:	79
Motif name:	cCGCGGrCACG
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11

Similarity score: 0.0757081

Alignment:
CCGCGGRCACG
BSCCCCGCGBS

Original motif Consensus sequence: CCGCGGRCACG

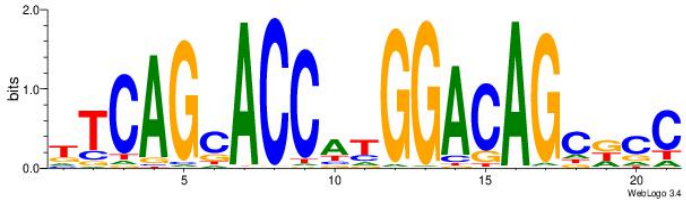
Reverse complement motif Consensus sequence: CGTGKCCGCGG

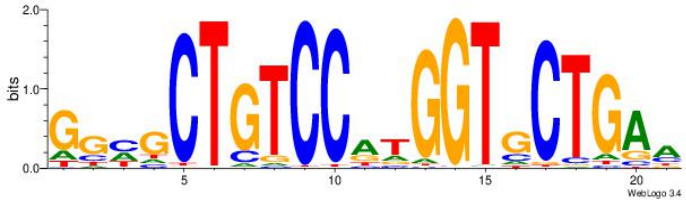
Dataset #: 3
Motif ID: 57
Motif name: REST
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 1
Number of overlap: 11
Similarity score: 0.0758097

Alignment:
GGYGCTGTCCATGGTGCTGAA
SBCGCGGGGSB----------

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC

Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA

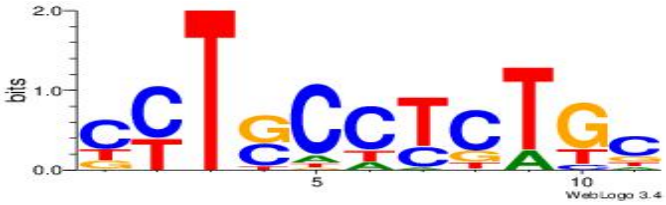




Dataset #: 1
Motif ID: 1
Motif name: Motif 1
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 1
Number of overlap: 11
Similarity score: 0.0788714

Alignment:
GCAGAGGSAKG
SBCGCGGGGSB

Original motif Consensus sequence: CYTSCCTCTGC



Reverse complement motif Consensus sequence: GCAGAGGSAKG

Dataset #: 4 Motif ID: 69 Motif name: atactttggc

Original motif Consensus sequence: ATACTTTGGC

Reverse complement motif Consensus sequence: GCCAAAGTAT

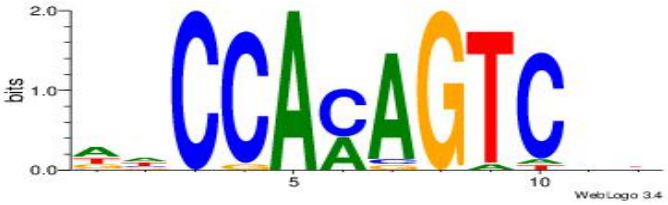
Best Matches for Motif ID 69 (Highest to Lowest)

Dataset #:	4
Motif ID:	75
Motif name:	wwCCAmAGTCmt
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	10
Similarity score:	0.0840909

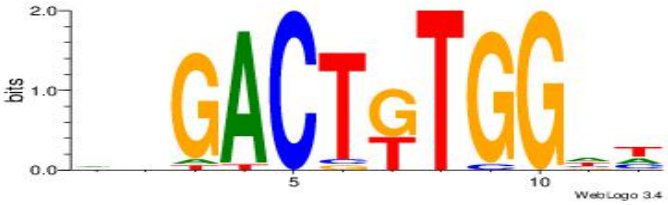
Alignment:

```
DDCCAMAGTCHB
-GCCAAAGTAT-
```

Original motif Consensus sequence: DDCCAMAGTCHB



Reverse complement motif Consensus sequence: VDGACTRTGGDD



Dataset #:	4
Motif ID:	80
Motif name:	taaacgatgcc
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	10
Similarity score:	0.1

Alignment:

```
GGCATCGTTTA
GCCAAAGTAT-
```

Original motif Consensus sequence: TAAACGATGCC

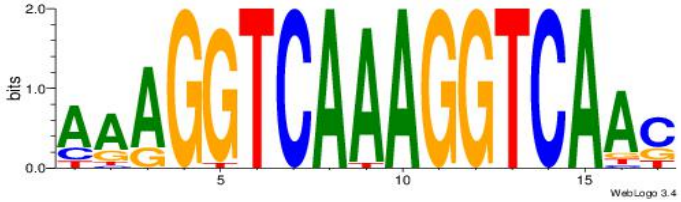
Reverse complement motif Consensus sequence: GGCATCGTTTA

Dataset #:	3
Motif ID:	60
Motif name:	NR1H2RXRA
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	5
Number of overlap:	10

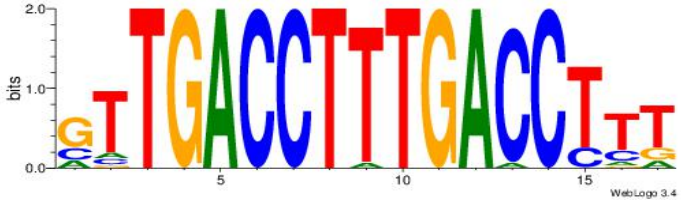
Similarity score: 0.102

Alignment:
AAAGGTCAAAGGTCAAC
---GCCAAAGTAT----

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC



Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT

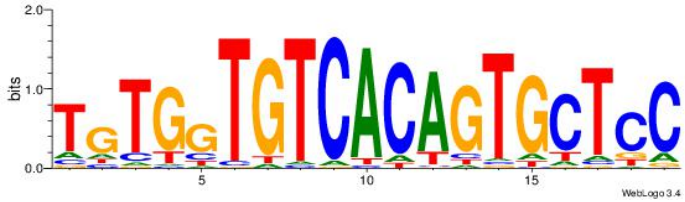


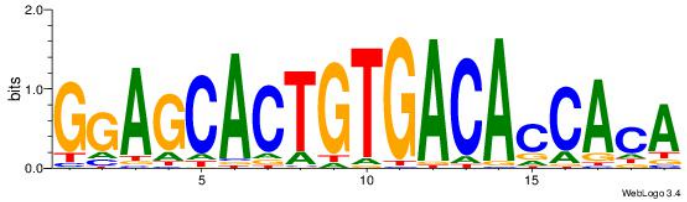
Dataset #: 4
Motif ID: 67
Motif name: TgTGgTGTCACAGTGCTCC
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 4
Number of overlap: 10
Similarity score: 0.109722

Alignment:
GGAGCACTGTGACACCACA
------ATACTTTGGC---

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC

Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA

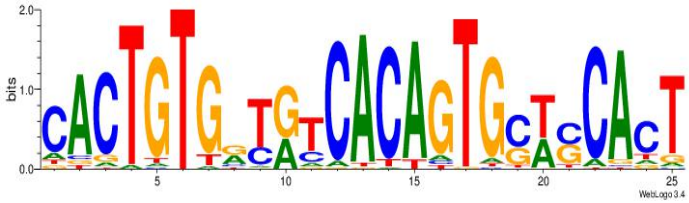




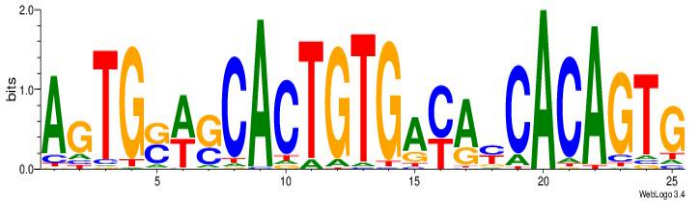
Dataset #: 4
Motif ID: 72
Motif name: CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Backward
Position number: 7
Number of overlap: 10
Similarity score: 0.109921

Alignment:
CACTGTGRTRTCACAGTGSWSCACT
---------GCCAAAGTAT------

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG



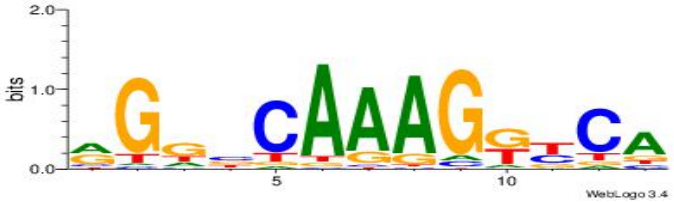
Dataset #: 3

Motif ID:	51
Motif name:	HNF4A
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	10
Similarity score:	0.110821

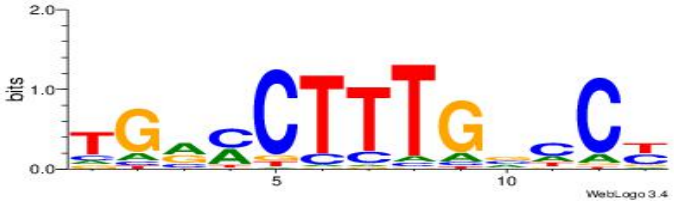
Alignment:

```
TGMYCTTTGBCCK
--ATACTTTGGC-
```

Original motif Consensus sequence: RGGBCAAAGKYCA



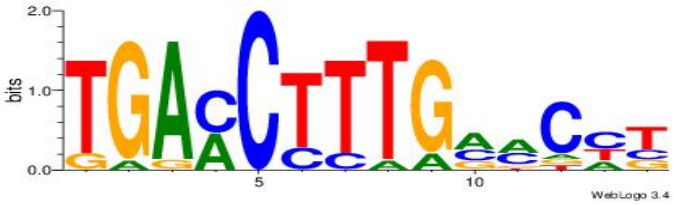
Reverse complement motif Consensus sequence: TGMYCTTTGBCCK



Dataset #:	3
Motif ID:	52
Motif name:	NR2F1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	10
Similarity score:	0.111538

Alignment:
TGAMCTTTGMMCYT
-ATACTTTGGC---

Original motif Consensus sequence: TGAMCTTTGMMCYT



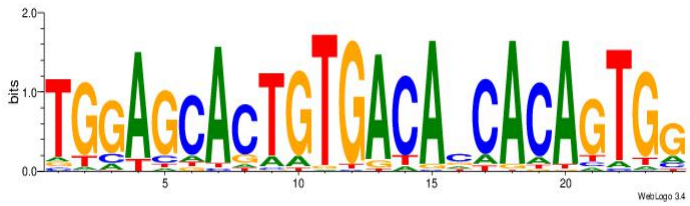
Reverse complement motif Consensus sequence: AKGYYCAAAGRTCA

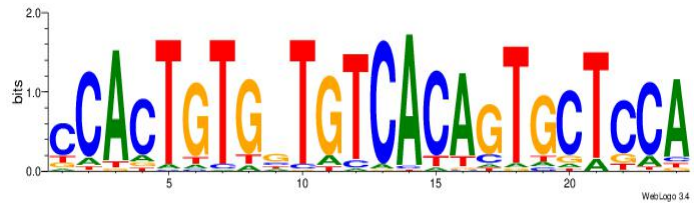
Dataset #:	4
Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	5
Number of overlap:	10
Similarity score:	0.111824

Alignment:
CCACTGTGVTGTCACAGTGCTCCA
----------GCCAAAGTAT----

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG

Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA



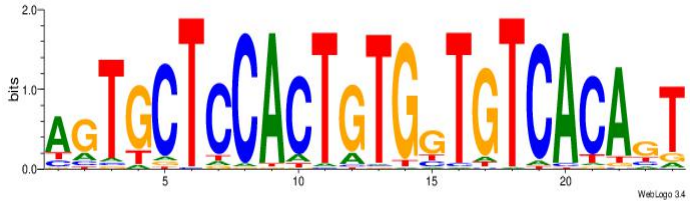


Dataset #:	4
Motif ID:	77
Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	9
Number of overlap:	10
Similarity score:	0.112324

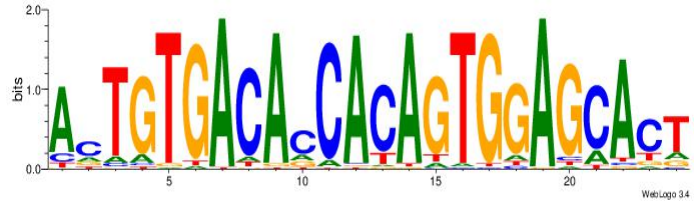
Alignment:

```
ACTGTGACACCACAGTGGAGCACT
--------GCCAAAGTAT------
```

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT



Dataset #:	1

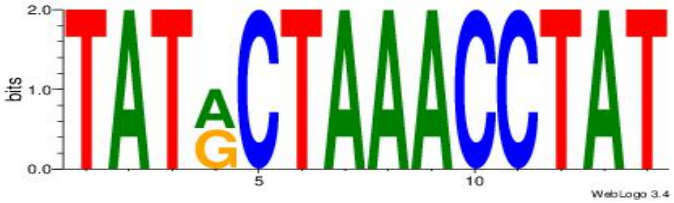
Motif ID:	46
Motif name:	Motif 46
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	10
Similarity score:	0.1125

Alignment:

```
TATKCTAAACCTAT
---ATACTTTGGC-
```

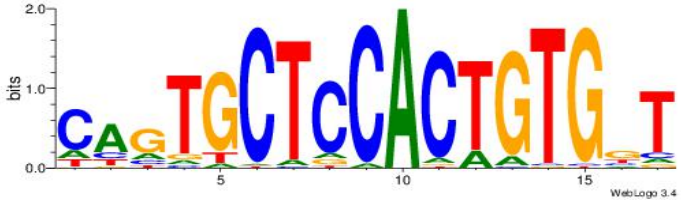
Original motif Consensus sequence: ATAGGTTTAGYATA

Reverse complement motif Consensus sequence: TATKCTAAACCTAT

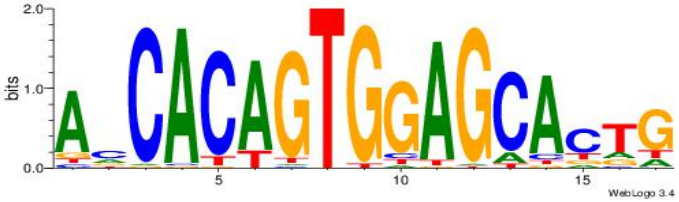


Dataset #: 4 Motif ID: 70 Motif name: CagTGCTCCACTGTGgT

Original motif Consensus sequence: CAGTGCTCCACTGTGBT



Reverse complement motif Consensus sequence: ABCACAGTGGAGCACTG



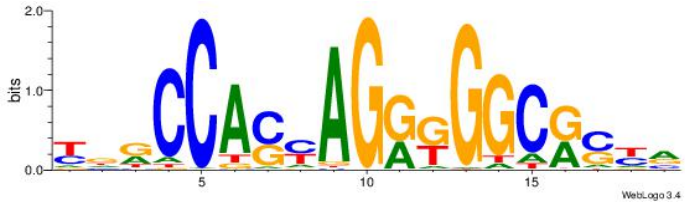
Best Matches for Motif ID 70 (Highest to Lowest)

Dataset #:	3
Motif ID:	66
Motif name:	CTCF
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	17
Similarity score:	0.0957051

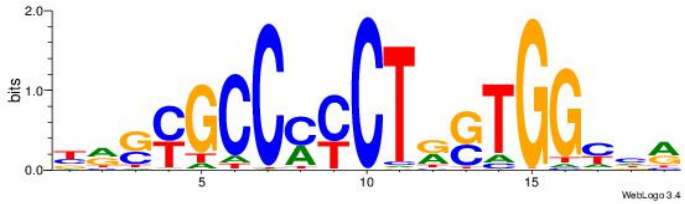
Alignment:

```
BMSMGCCYMCTKSTGGMHM
--CAGTGCTCCACTGTGBT
```

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM



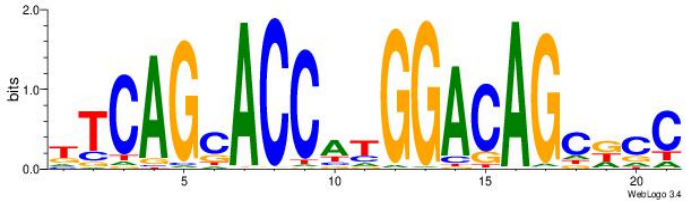
Dataset #:	3
Motif ID:	57
Motif name:	REST
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif

Direction:	Forward
Position number:	2
Number of overlap:	17
Similarity score:	0.0975871

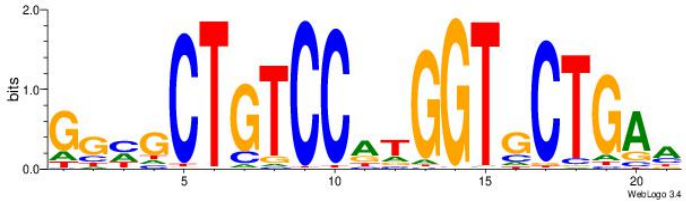
Alignment:

```
TTCAGCACCATGGACAGCKCC
-ABCACAGTGGAGCACTG---
```

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA

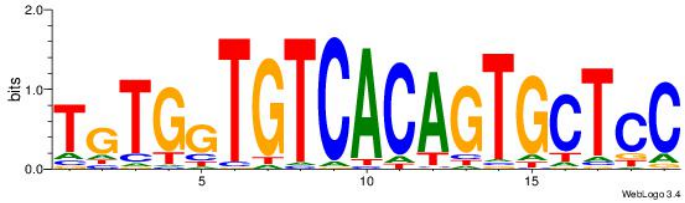


Dataset #:	4
Motif ID:	67
Motif name:	TgTGgTGTCACAGTGCTCC
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	17
Similarity score:	0.0980868

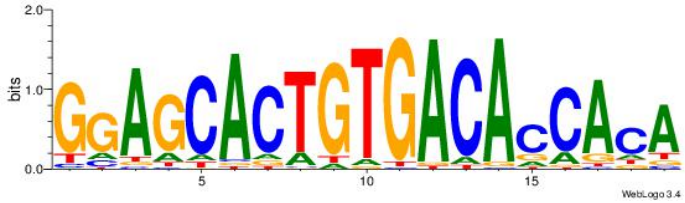
Alignment:

```
TGTGGTGTCACAGTGCTCC
CAGTGCTCCACTGTGBT--
```

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA

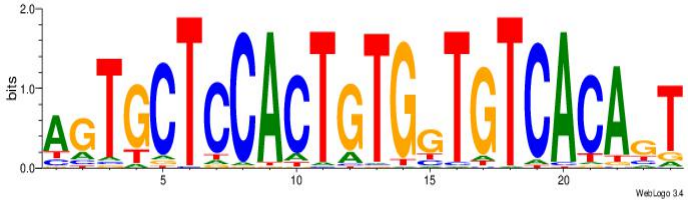


Dataset #:	4
Motif ID:	77
Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	17
Similarity score:	0.099784

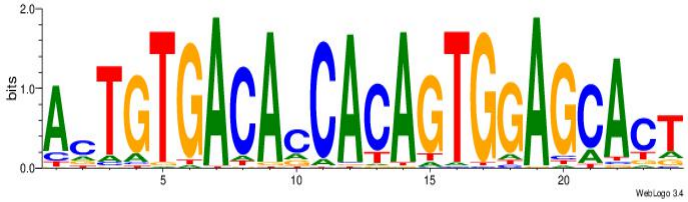
Alignment:

```
AGTGCTCCACTGTGGTGTCACAGT
-----ABCACAGTGGAGCACTG--
```

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT

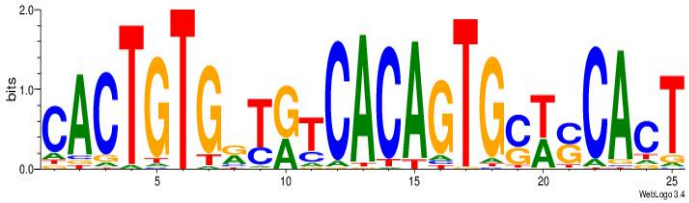


Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	6
Number of overlap:	17
Similarity score:	0.104226

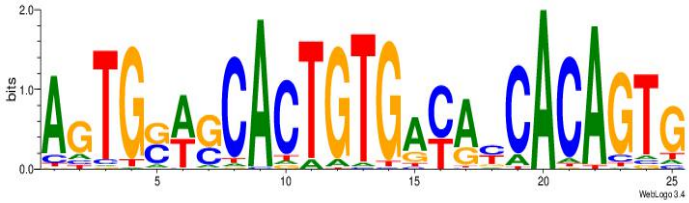
Alignment:

```
AGTGSWSCACTGTGAMAMCACAGTG
-----ABCACAGTGGAGCACTG---
```

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG

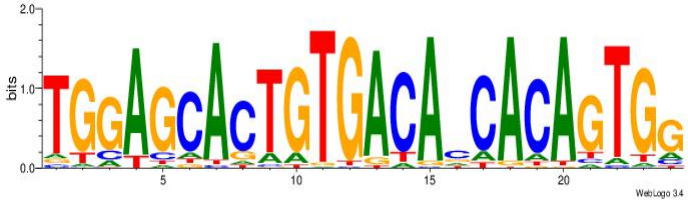


Dataset #:	4
Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	5

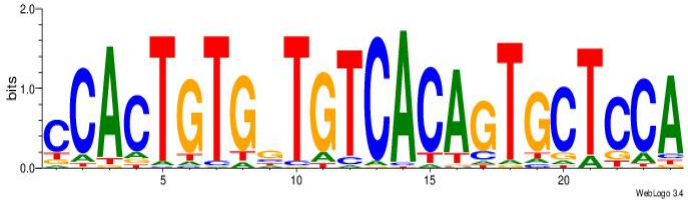
Number of overlap: 17
Similarity score: 0.107548

Alignment:
TGGAGCACTGTGACAVCACAGTGG
---ABCACAGTGGAGCACTG----

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



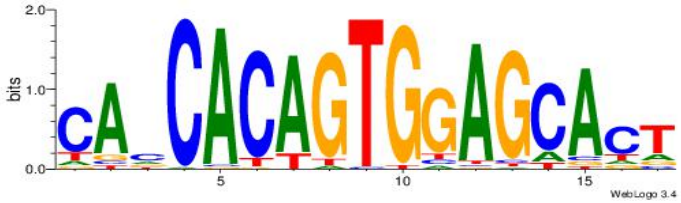
Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA



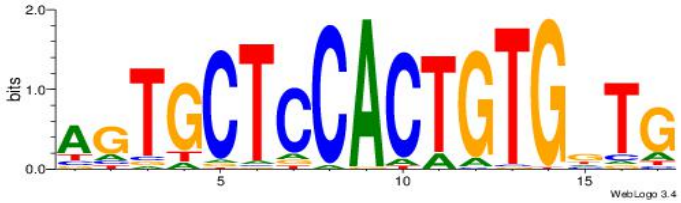
Dataset #: 4
Motif ID: 76
Motif name: CAcCACAGTGGAGCAct
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 2
Number of overlap: 16
Similarity score: 0.5

Alignment:
-AGTGCTCCACTGTGDTG
CAGTGCTCCACTGTGBT-

Original motif Consensus sequence: CAHCACAGTGGAGCACT



Reverse complement motif Consensus sequence: AGTGCTCCACTGTGDTG

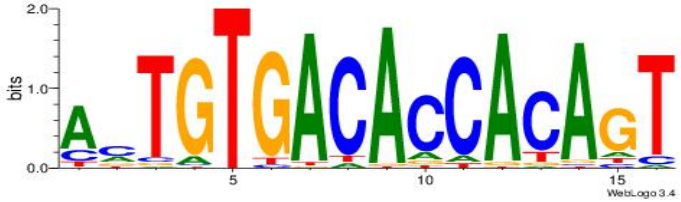


Dataset #:	4
Motif ID:	71
Motif name:	AmTGTGACACCACAGT
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	16
Similarity score:	0.607943

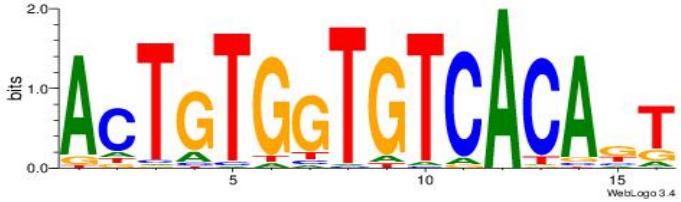
Alignment:

```
-AMTGTGACACCACAGT
CAGTGCTCCACTGTGBT
```

Original motif Consensus sequence: AMTGTGACACCACAGT



Reverse complement motif Consensus sequence: ACTGTGGTGTCACART

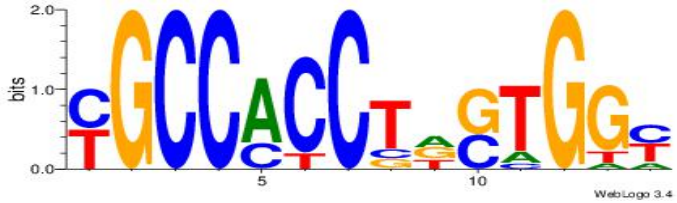


Dataset #:	2
Motif ID:	47
Motif name:	Motif 47
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	14
Similarity score:	1.59821

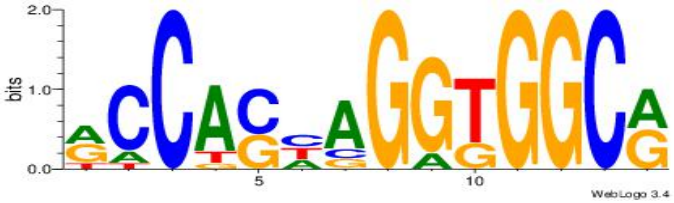
Alignment:

```
---YGCCACCTDSTGGY
CAGTGCTCCACTGTGBT
```

Original motif Consensus sequence: YGCCACCTDSTGGY



Reverse complement motif Consensus sequence: KCCASDAGGTGGC

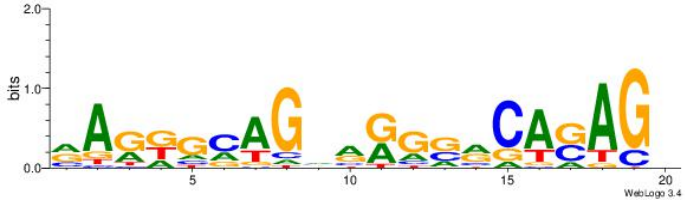


Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	8
Number of overlap:	13

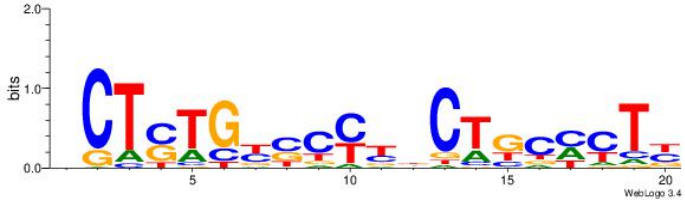
Similarity score: 2.09999

Alignment:
VCTSTGKSCMKBCTRCYCTK----
-------CAGTGCTCCACTGTGBT

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV

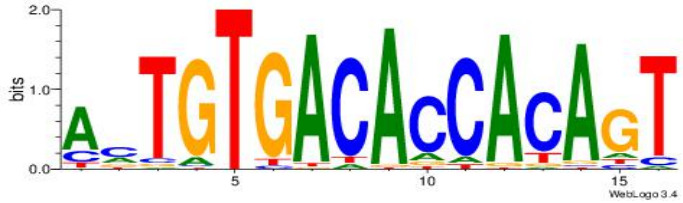


Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK

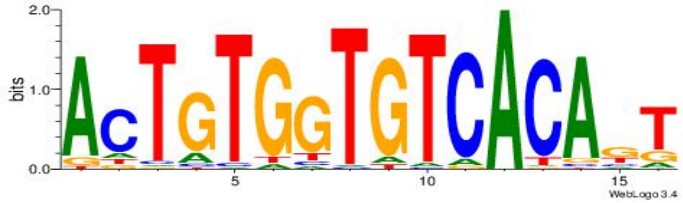


Dataset #: 4 Motif ID: 71 Motif name: AmTGTGACACCACAGT

Original motif Consensus sequence: AMTGTGACACCACAGT



Reverse complement motif Consensus sequence: ACTGTGGTGTCACART



Best Matches for Motif ID 71 (Highest to Lowest)

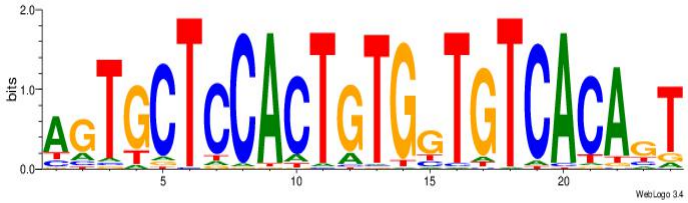
Dataset #:	4
Motif ID:	77
Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Original Motif

Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	16
Similarity score:	0.00066365

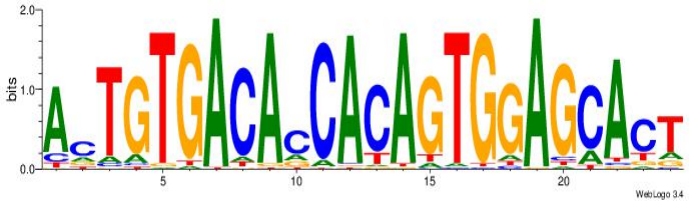
Alignment:

```
ACTGTGACACCACAGTGGAGCACT
AMTGTGACACCACAGT--------
```

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT

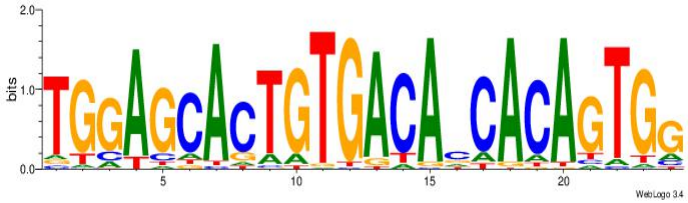


Dataset #:	4
Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	16
Similarity score:	0.00238202

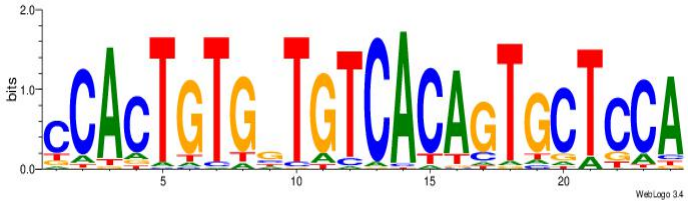
Alignment:

CCACTGTGVTGTCACAGTGCTCCA
--ACTGTGGTGTCACART------

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

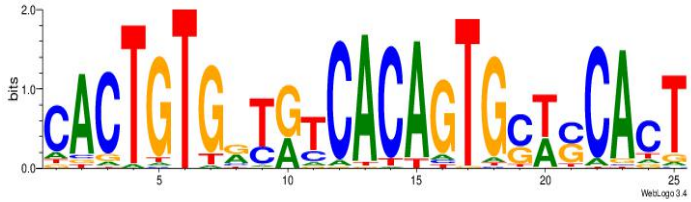


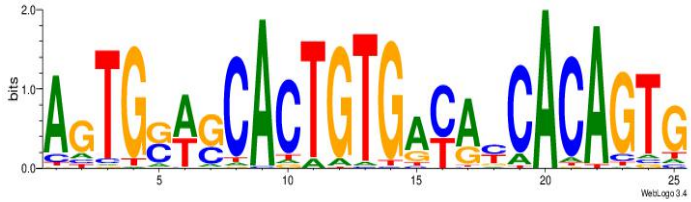
Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	16
Similarity score:	0.0203916

Alignment:
CACTGTGRTRTCACAGTGSWSCACT
-ACTGTGGTGTCACART--------

Original motif Consensus sequence: CACTGTGRTRTCACAGTGSWSCACT

Reverse complement motif Consensus sequence: AGTGSWSCACTGTGAMAMCACAGTG



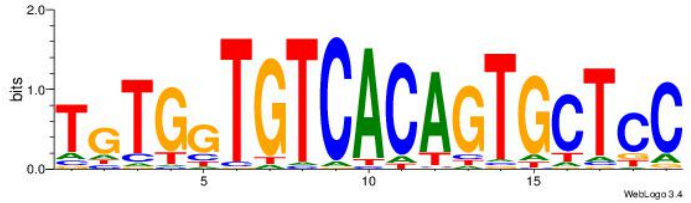


Dataset #:	4
Motif ID:	67
Motif name:	TgTGgTGTCACAGTGCTCC
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	16
Similarity score:	0.0957574

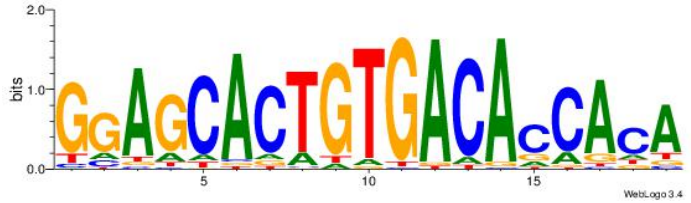
Alignment:

```
GGAGCACTGTGACACCACA
ACTGTGGTGTCACART---
```

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA



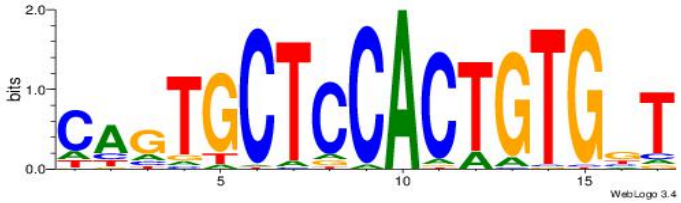
Dataset #:	4

Motif ID:	70
Motif name:	CagTGCTCCACTGTGgT
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	16
Similarity score:	0.0995605

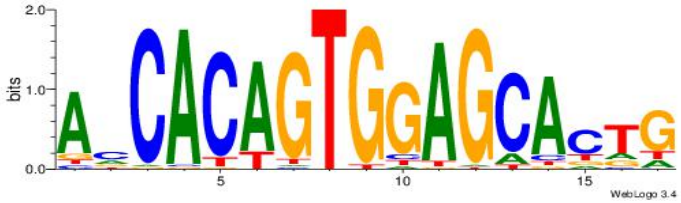
Alignment:

```
CAGTGCTCCACTGTGBT
-AMTGTGACACCACAGT
```

Original motif Consensus sequence: CAGTGCTCCACTGTGBT



Reverse complement motif Consensus sequence: ABCACAGTGGAGCACTG

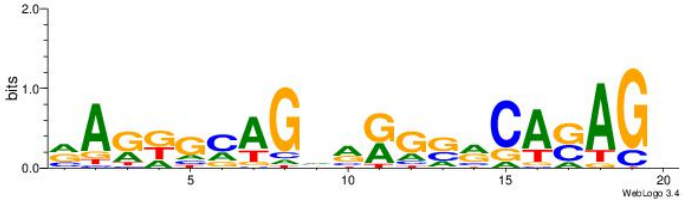


Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	5
Number of overlap:	16

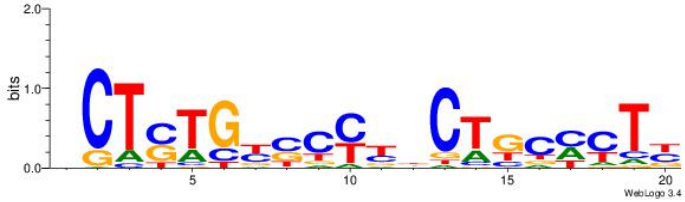
Similarity score: 0.10061

Alignment:
RAGKGMAGVRRGSRCASAGV
----AMTGTGACACCACAGT

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK

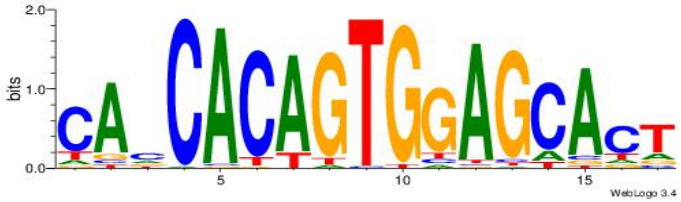


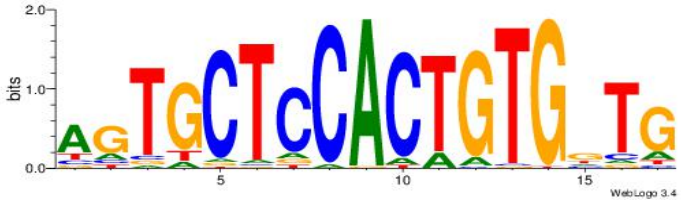
Dataset #: 4
Motif ID: 76
Motif name: CAcCACAGTGGAGCAct
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 2
Number of overlap: 16
Similarity score: 0.102539

Alignment:
AGTGCTCCACTGTGDTG
AMTGTGACACCACAGT-

Original motif Consensus sequence: CAHCACAGTGGAGCACT

Reverse complement motif Consensus sequence: AGTGCTCCACTGTGDTG



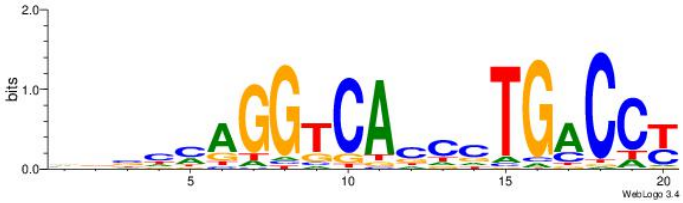


Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	6
Number of overlap:	15
Similarity score:	0.595756

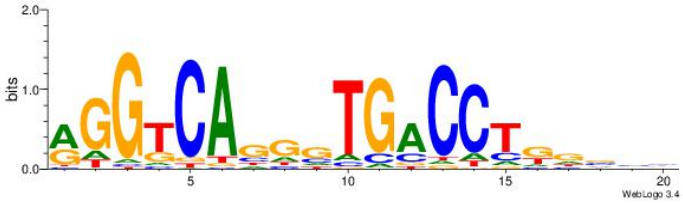
Alignment:

```
-MGGTCAGGGTGACCTRDBHV
AMTGTGACACCACAGT-----
```

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV



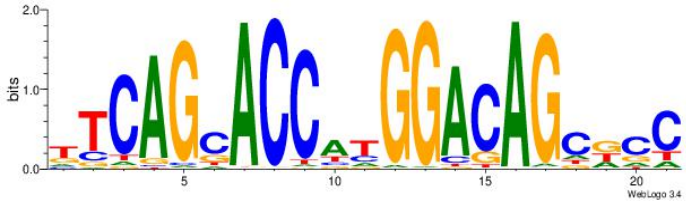
Dataset #:	3

Motif ID:	57
Motif name:	REST
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	8
Number of overlap:	14
Similarity score:	1.10257

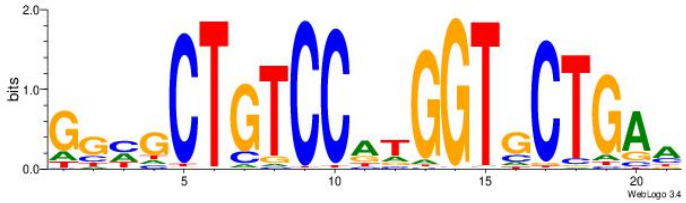
Alignment:

```
--GGYGCTGTCCATGGTGCTGAA
ACTGTGGTGTCACART-------
```

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA

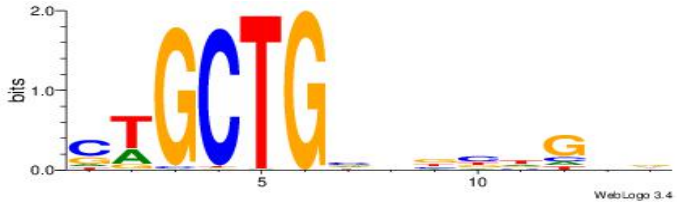


Dataset #:	5
Motif ID:	88
Motif name:	TFF11
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	13

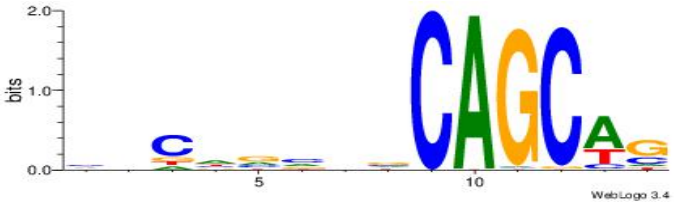
Similarity score: 1.59198

Alignment:
HVCDBBDBCAGCAG---
-AMTGTGACACCACAGT

Original motif Consensus sequence: CTGCTGBDBBDGBD

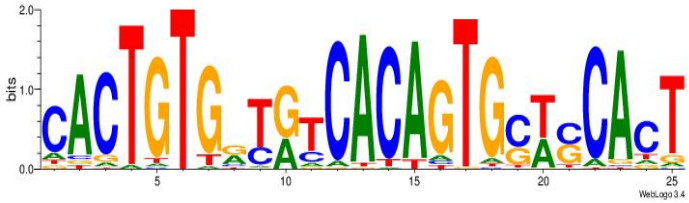


Reverse complement motif Consensus sequence: HVCDBBDBCAGCA

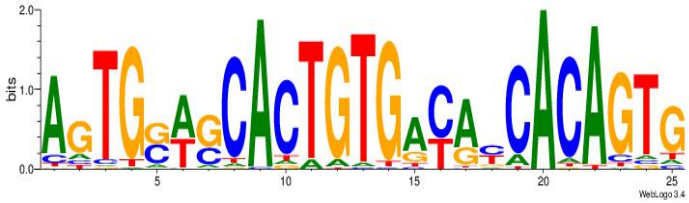


Dataset #: 4 Motif ID: 72 Motif name: CACTGTGrYrtCACAGTGswsCAcT

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG



Best Matches for Motif ID 72 (Highest to Lowest)

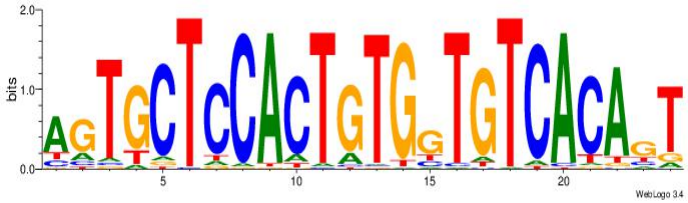
Dataset #:	4
Motif ID:	77
Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement

Direction:	Backward
Position number:	1
Number of overlap:	24
Similarity score:	0.0299166

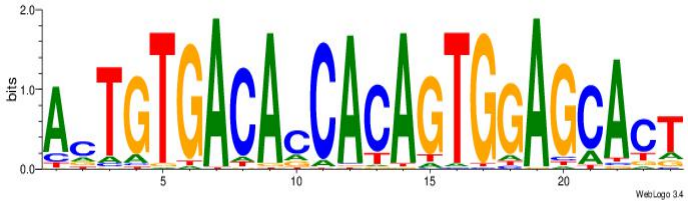
Alignment:

```
-ACTGTGACACCACAGTGGAGCACT
CACTGTGRTRTCACAGTGSWSCACT
```

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT

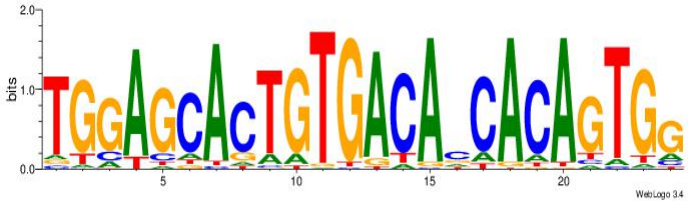


Dataset #:	4
Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	23
Similarity score:	0.506166

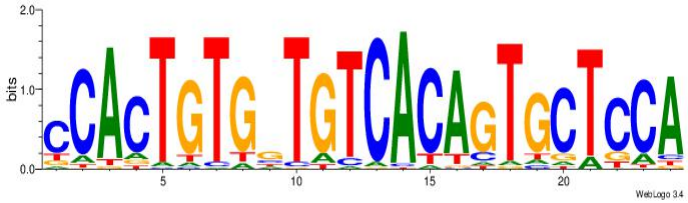
Alignment:

```
--TGGAGCACTGTGACAVCACAGTGG
AGTGSWSCACTGTGAMAMCACAGTG-
```

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

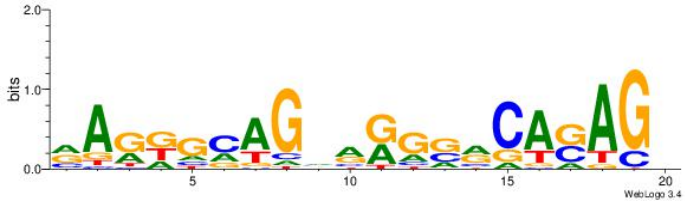


Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	19
Similarity score:	2.59185

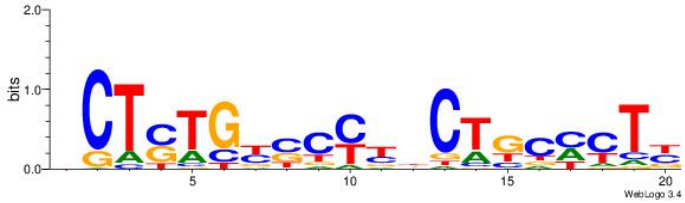
Alignment:

```
RAGKGMAGVRRGSRCASAGV------
-AGTGSWSCACTGTGAMAMCACAGTG
```

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK

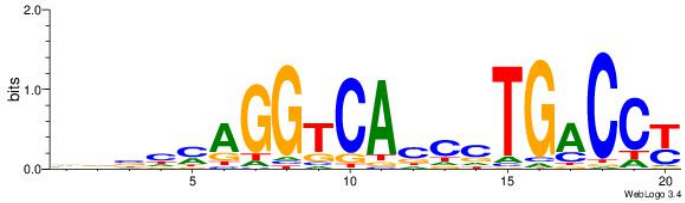


Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	18
Similarity score:	3.08766

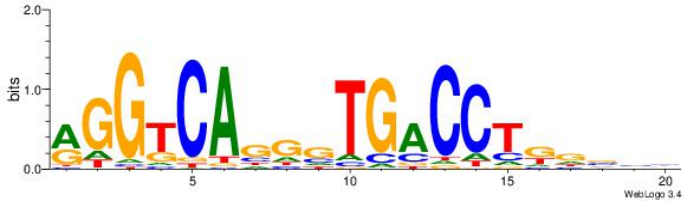
Alignment:

```
MGGTCAGGGTGACCTRDBHV-------
--CACTGTGRTRTCACAGTGSWSCACT
```

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

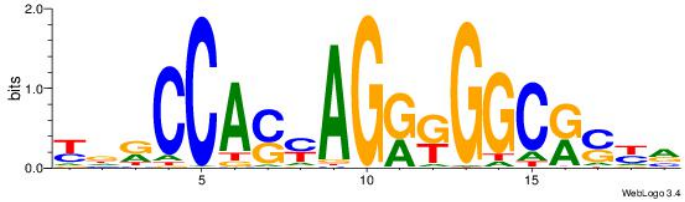


Dataset #:	3
Motif ID:	66
Motif name:	CTCF
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2

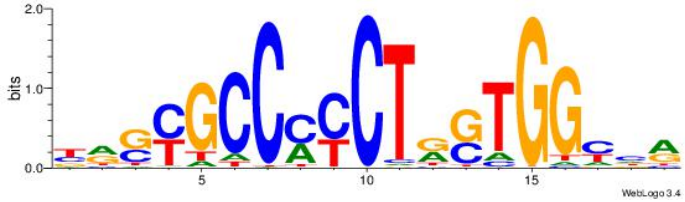
Number of overlap: 18
Similarity score: 3.09362

Alignment:
BMSMGCCYMCTKSTGGMHM-------
-AGTGSWSCACTGTGAMAMCACAGTG

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



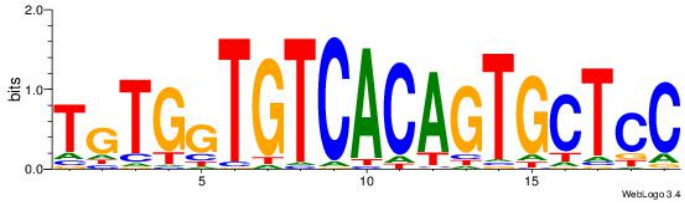
Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM



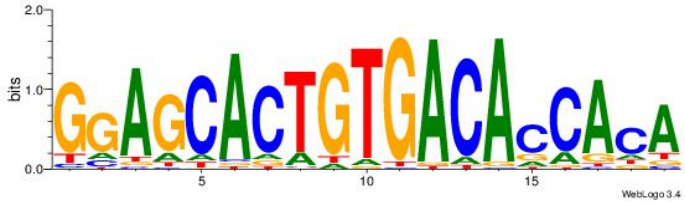
Dataset #: 4
Motif ID: 67
Motif name: TgTGgTGTCACAGTGCTCC
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 2
Number of overlap: 18
Similarity score: 3.09504

Alignment:
GGAGCACTGTGACACCACA-------
-CACTGTGRTRTCACAGTGSWSCACT

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA

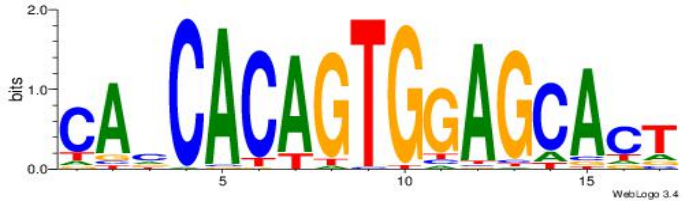


Dataset #:	4
Motif ID:	76
Motif name:	CAcCACAGTGGAGCAct
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	17
Similarity score:	3.52969

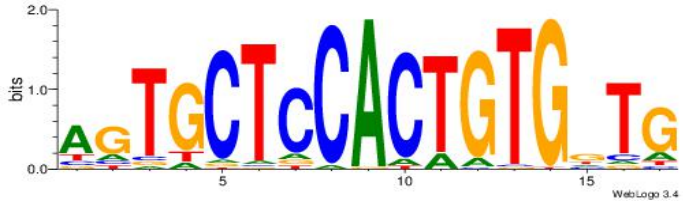
Alignment:

```
--------CAHCACAGTGGAGCACT
CACTGTGRTRTCACAGTGSWSCACT
```

Original motif Consensus sequence: CAHCACAGTGGAGCACT



Reverse complement motif Consensus sequence: AGTGCTCCACTGTGDTG

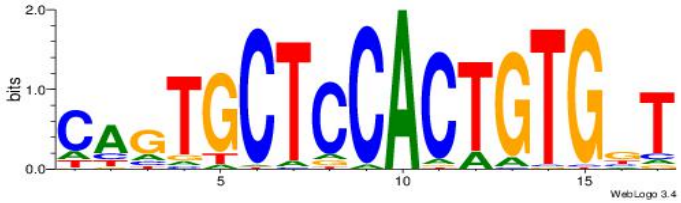


Dataset #:	4
Motif ID:	70
Motif name:	CagTGCTCCACTGTGgT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	16
Similarity score:	4.02785

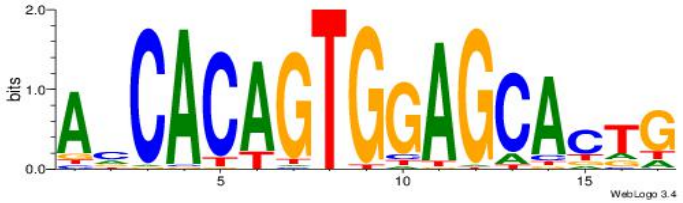
Alignment:

```
---------CAGTGCTCCACTGTGBT
AGTGSWSCACTGTGAMAMCACAGTG-
```

Original motif Consensus sequence: CAGTGCTCCACTGTGBT



Reverse complement motif Consensus sequence: ABCACAGTGGAGCACTG

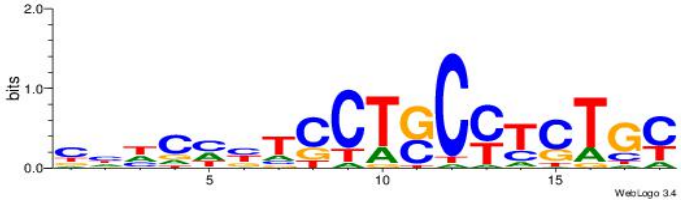


Dataset #:	5
Motif ID:	90
Motif name:	TFM2
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	4

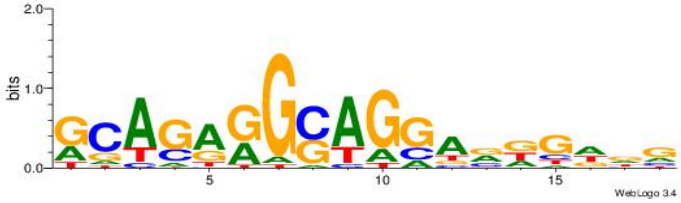
Number of overlap: 15
Similarity score: 4.59058

Alignment:
```
----------CHHCHBTCCTSCYTCTGC
CACTGTGRTRTCACAGTGSWSCACT---
```

Original motif Consensus sequence: CHHCHBTCCTSCYTCTGC



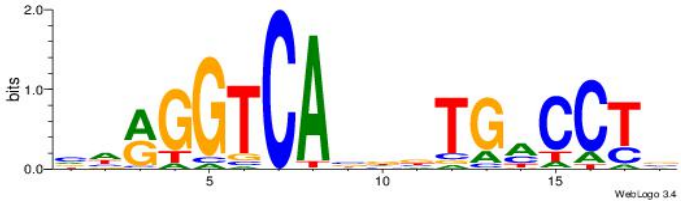
Reverse complement motif Consensus sequence: GCAGAKGSAGGABDGHDG



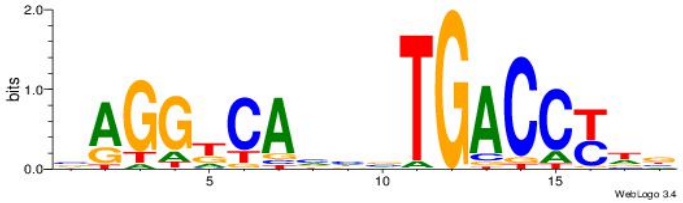
Dataset #: 3
Motif ID: 59
Motif name: ESR2
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 6
Number of overlap: 13
Similarity score: 5.58821

Alignment:
```
VHRGGTCABDBTGMCCTB------------
-----AGTGSWSCACTGTGAMAMCACAGTG
```

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB

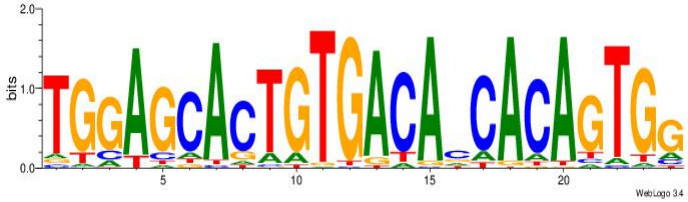


Reverse complement motif Consensus sequence: BAGGYCABHBTGACCKHV

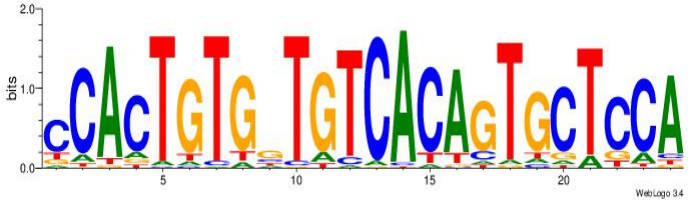


Dataset #: 4 Motif ID: 73 Motif name: TGGAGCACTGTGACAcCACAGTGg

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

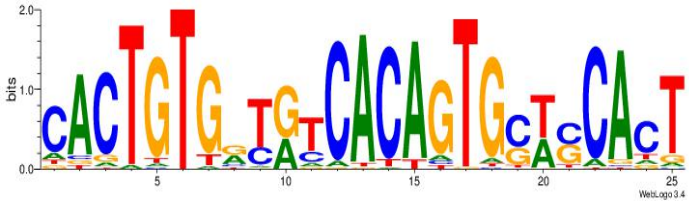


Best Matches for Motif ID 73 (Highest to Lowest)

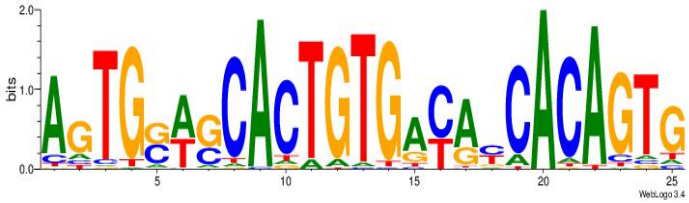
Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	23
Similarity score:	0.0136536

Alignment:
CACTGTGRTRTCACAGTGSWSCACT-
--CCACTGTGVTGTCACAGTGCTCCA

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG

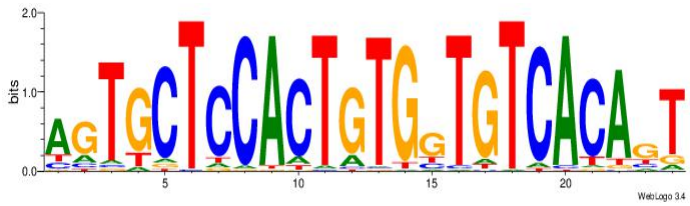


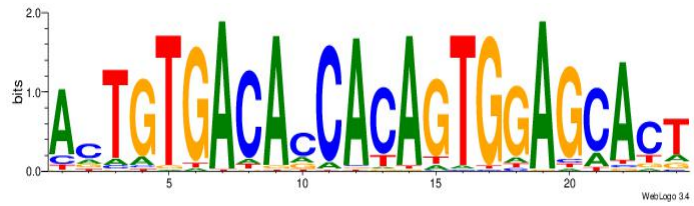
Dataset #:	4
Motif ID:	77
Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	22
Similarity score:	0.560082

Alignment:
--ACTGTGACACCACAGTGGAGCACT
CCACTGTGVTGTCACAGTGCTCCA--

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT

Reverse complement motif Consensus sequence:
ACTGTGACACCACAGTGGAGCACT

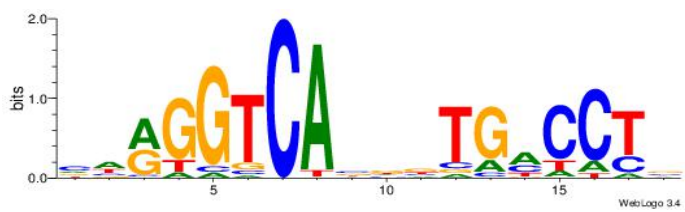




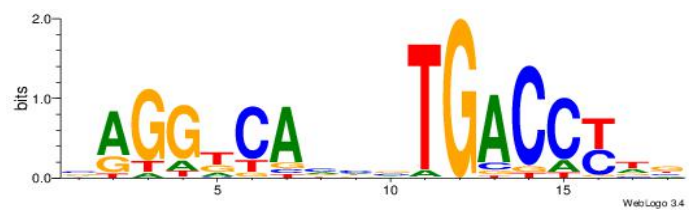
Dataset #: 3
Motif ID: 59
Motif name: ESR2
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 1
Number of overlap: 18
Similarity score: 2.5833

Alignment:
------BAGGYCABHBTGACCKHV
TGGAGCACTGTGACAVCACAGTGG

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB



Reverse complement motif Consensus sequence:
BAGGYCABHBTGACCKHV



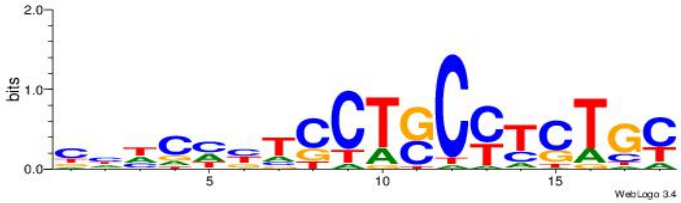
Dataset #: 5

Motif ID:	90
Motif name:	TFM2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	18
Similarity score:	2.60363

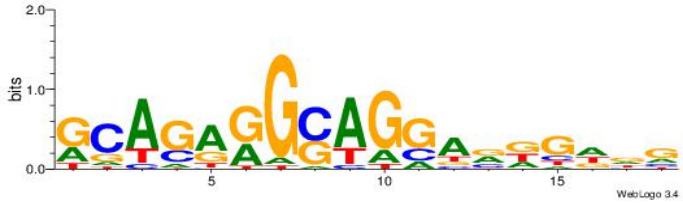
Alignment:

```
CHHCHBTCCTSCYTCTGC------
CCACTGTGVTGTCACAGTGCTCCA
```

Original motif Consensus sequence: CHHCHBTCCTSCYTCTGC



Reverse complement motif Consensus sequence: GCAGAKGSAGGABDGHDG

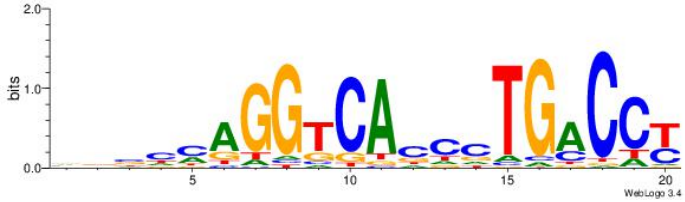


Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	17

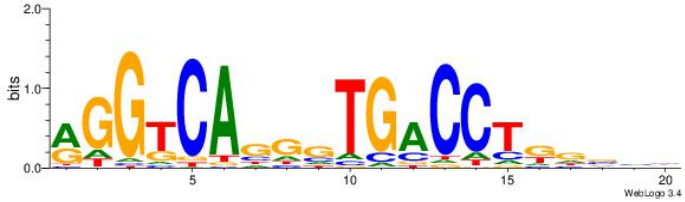
Similarity score: 3.10239

Alignment:
MGGTCAGGGTGACCTRDBHV-------
---CCACTGTGVTGTCACAGTGCTCCA

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence:
MGGTCAGGGTGACCTRDBHV

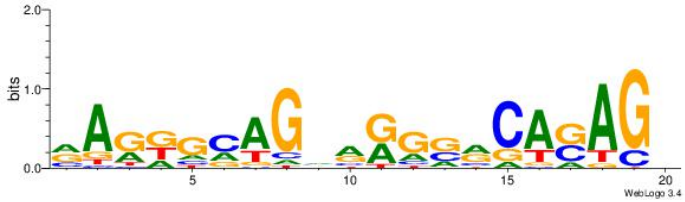


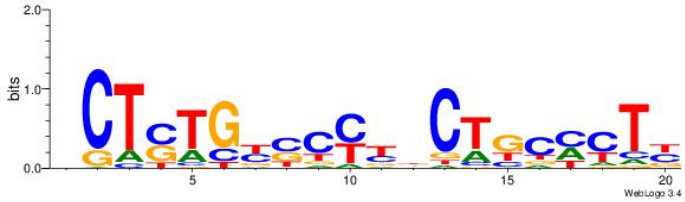
Dataset #: 5
Motif ID: 93
Motif name: TFM12
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 4
Number of overlap: 17
Similarity score: 3.10268

Alignment:
RAGKGMAGVRRGSRCASAGV-------
---TGGAGCACTGTGACAVCACAGTGG

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV

Reverse complement motif Consensus sequence:
VCTSTGKSCMKBCTRCYCTK

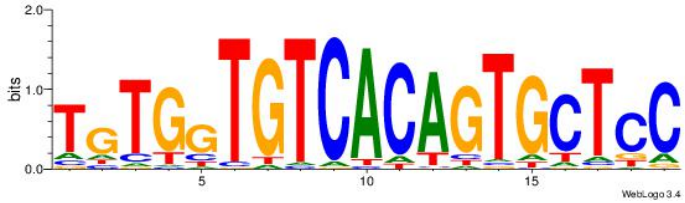




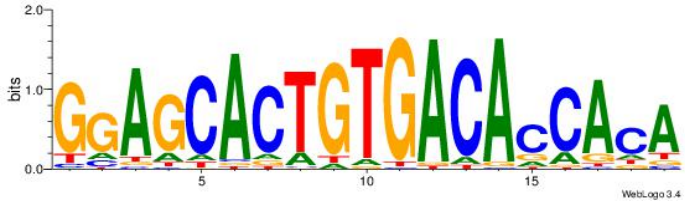
Dataset #: 4
Motif ID: 67
Motif name: TgTGgTGTCACAGTGCTCC
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 4
Number of overlap: 16
Similarity score: 3.56015

Alignment:
GGAGCACTGTGACACCACA--------
---CCACTGTGVTGTCACAGTGCTCCA

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



Reverse complement motif Consensus sequence:
GGAGCACTGTGACACCACA



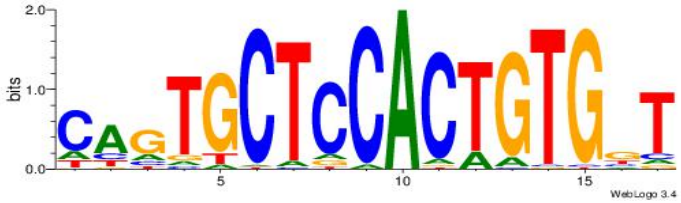
Dataset #: 4

Motif ID:	70
Motif name:	CagTGCTCCACTGTGgT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	16
Similarity score:	3.58845

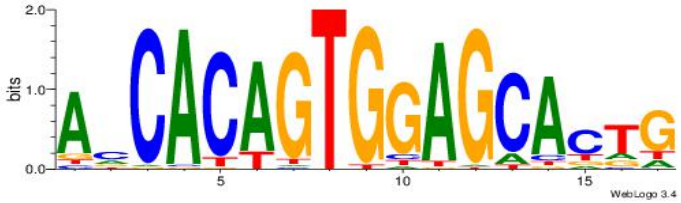
Alignment:

```
ABCACAGTGGAGCACTG--------
-CCACTGTGVTGTCACAGTGCTCCA
```

Original motif Consensus sequence: CAGTGCTCCACTGTGBT



Reverse complement motif Consensus sequence: ABCACAGTGGAGCACTG

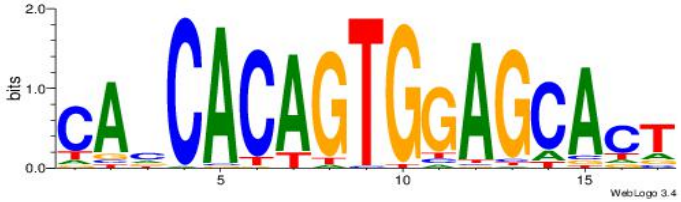


Dataset #:	4
Motif ID:	76
Motif name:	CAcCACAGTGGAGCAct
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	15

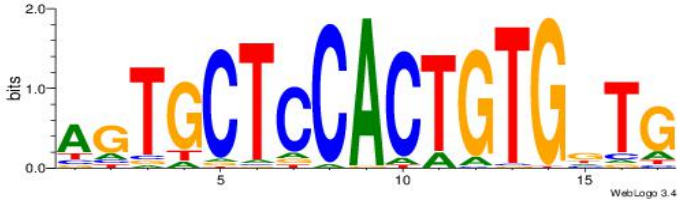
Similarity score: 4.07113

Alignment:
AGTGCTCCACTGTGDTG---------
--TGGAGCACTGTGACAVCACAGTGG

Original motif Consensus sequence: CAHCACAGTGGAGCACT



Reverse complement motif Consensus sequence: AGTGCTCCACTGTGDTG

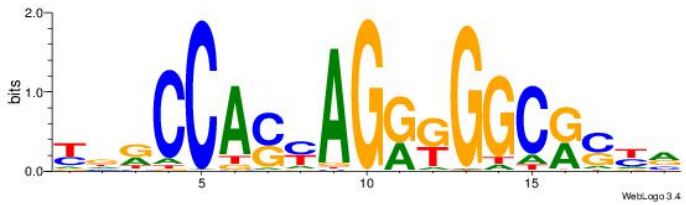


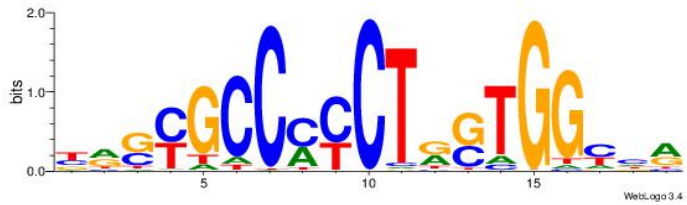
Dataset #: 3
Motif ID: 66
Motif name: CTCF
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 5
Number of overlap: 15
Similarity score: 4.10183

Alignment:
---------YDRCCASYAGRKGGCRSYV
TGGAGCACTGTGACAVCACAGTGG----

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV

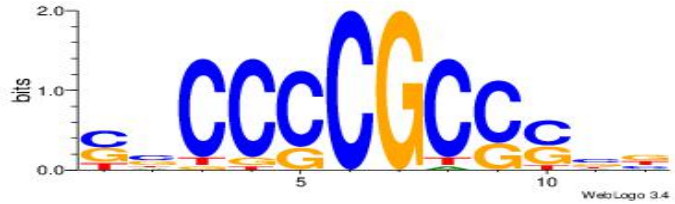
Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM





Dataset #: 4 **Motif ID: 74** **Motif name: ssCCCCGCSssk**

Original motif Consensus sequence: SBCCCCGCCSBB



Reverse complement motif Consensus sequence: BBSGGCGGGGBS

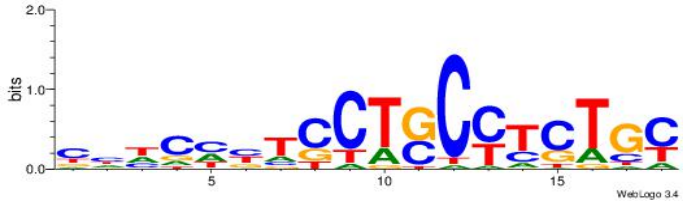
Best Matches for Motif ID 74 (Highest to Lowest)

Dataset #:	5
Motif ID:	90
Motif name:	TFM2
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	12
Similarity score:	0.0606622

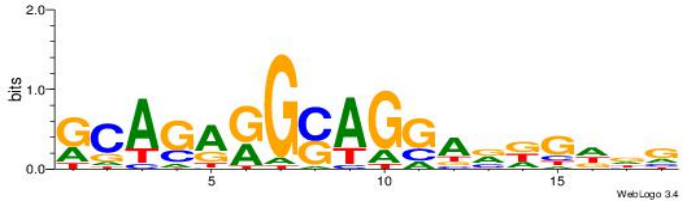
Alignment:

```
CHHCHBTCCTSCYTCTGC
----SBCCCCGCCSBB--
```

Original motif Consensus sequence: CHHCHBTCCTSCYTCTGC



Reverse complement motif Consensus sequence: GCAGAKGSAGGABDGHDG

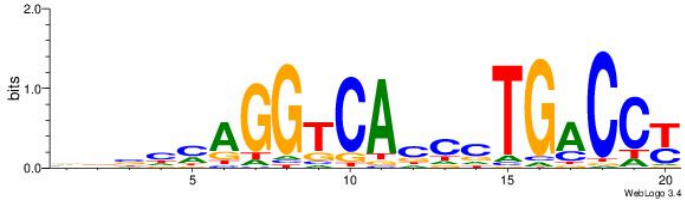


Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	12
Similarity score:	0.063076

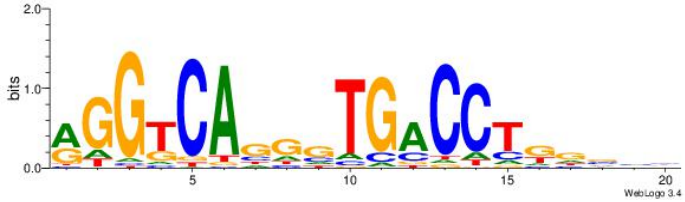
Alignment:

```
MGGTCAGGGTGACCTRDBHV
-------BBSGGCGGGGBS-
```

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

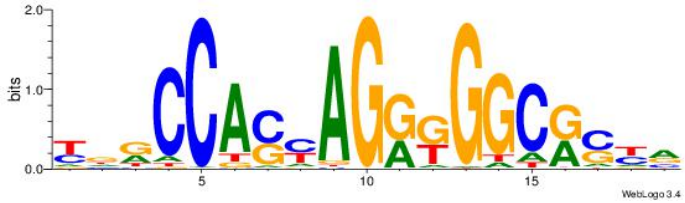


Dataset #:	3
Motif ID:	66
Motif name:	CTCF
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	12
Similarity score:	0.0642087

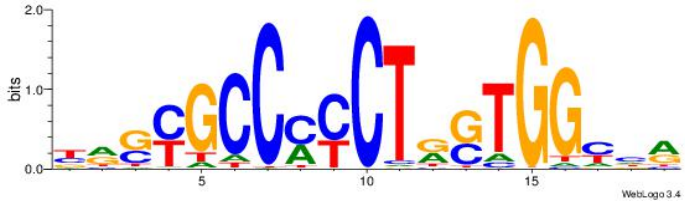
Alignment:

```
YDRCCASYAGRKGGCRSYV
-BBSGGCGGGGBS------
```

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM



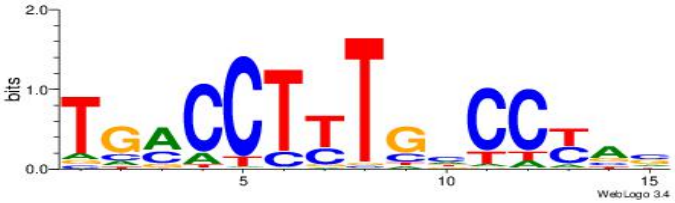
Dataset #:	3
Motif ID:	64
Motif name:	PPARGRXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3

Number of overlap: 12
Similarity score: 0.0671548

Alignment:
TGRCCTKTGHCCKAB
-SBCCCCGCCSBB--

Original motif Consensus sequence: BTRGGDCARAGGKCA

Reverse complement motif Consensus sequence: TGRCCTKTGHCCK

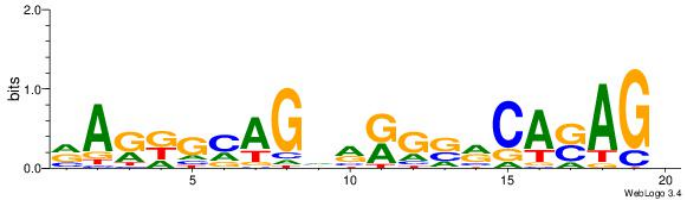


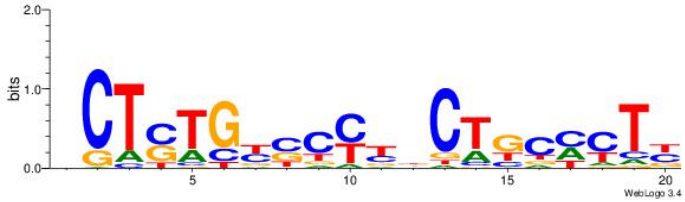
Dataset #: 5
Motif ID: 93
Motif name: TFM12
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Backward
Position number: 6
Number of overlap: 12
Similarity score: 0.0674545

Alignment:
RAGKGMAGVRRGSRCASAGV
---BBSGGCGGGGBS-----

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV

Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK

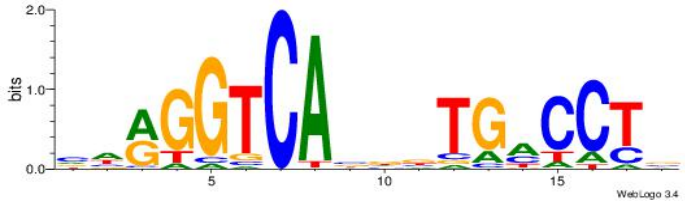




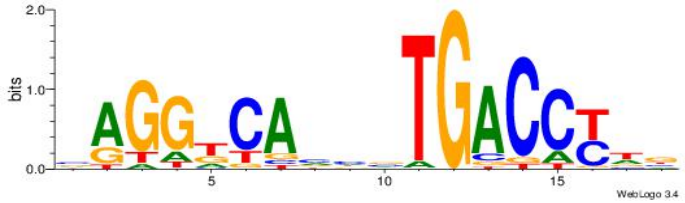
Dataset #: 3
Motif ID: 59
Motif name: ESR2
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 2
Number of overlap: 12
Similarity score: 0.0734481

Alignment:
BAGGYCABHBTGACCKHV
-SBCCCCGCCSBB-----

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB



Reverse complement motif Consensus sequence:
BAGGYCABHBTGACCKHV



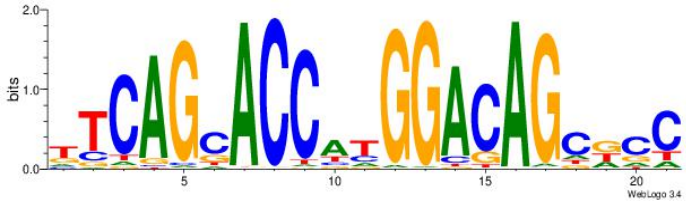
Dataset #: 3

Motif ID:	57
Motif name:	REST
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	10
Number of overlap:	12
Similarity score:	0.0751084

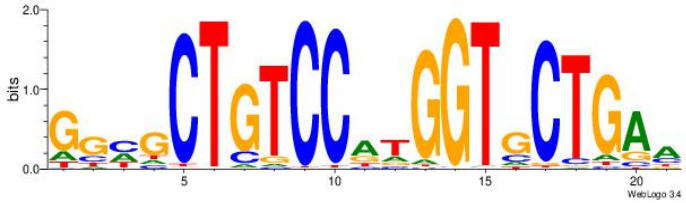
Alignment:

```
TTCAGCACCATGGACAGCKCC
BBSGGCGGGGBS---------
```

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA

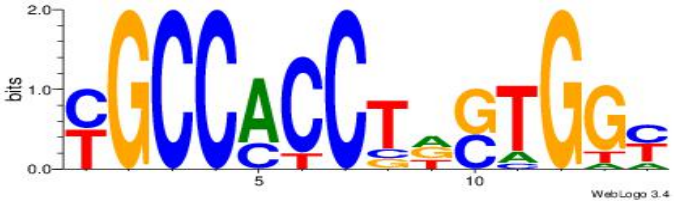


Dataset #:	2
Motif ID:	47
Motif name:	Motif 47
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	12

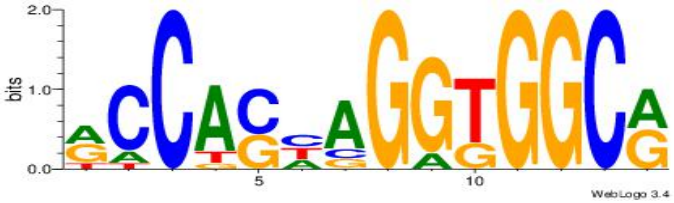
Similarity score: 0.078885

Alignment:
YGCCACCTDSTGGY
SBCCCCGCCSBB--

Original motif Consensus sequence: YGCCACCTDSTGGY



Reverse complement motif Consensus sequence: KCCASDAGGTGGC



Dataset #: 4
Motif ID: 68
Motif name: sscCCCGCGcs
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 1
Number of overlap: 11
Similarity score: 0.5

Alignment:
BSCCCCGCGBS-
SBCCCCGCCSBB

Original motif Consensus sequence: BSCCCCGCGBS

Reverse complement motif Consensus sequence: SBCGCGGGGSB

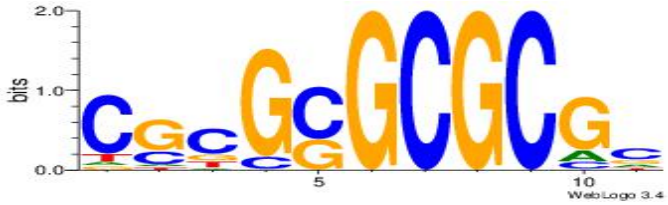
Dataset #:	4
Motif ID:	82
Motif name:	gCGCGCsCgsG
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.548902

Alignment:

```
-CGCGSGCGCGC
BBSGGCGGGGBS
```

Original motif Consensus sequence: GCGCGCSCGCG

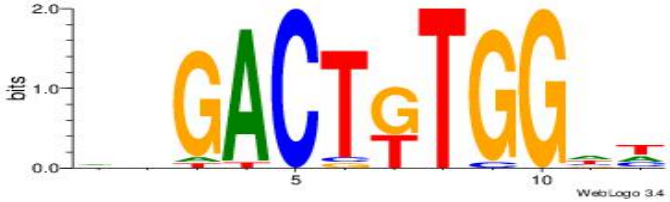
Reverse complement motif Consensus sequence: CGCGSGCGCGC



Dataset #: 4 Motif ID: 75 Motif name: wwCCAmAGTCmt

Original motif Consensus sequence: DDCCAMAGTCHB

Reverse complement motif Consensus sequence: VDGACTRTGGDD



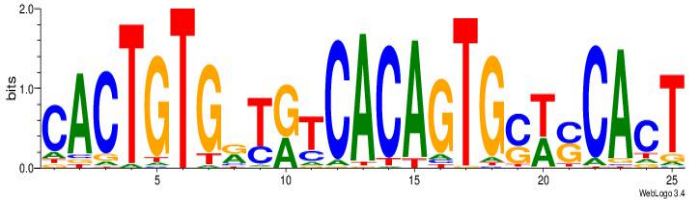
Best Matches for Motif ID 75 (Highest to Lowest)

Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	9
Number of overlap:	12
Similarity score:	0.0656866

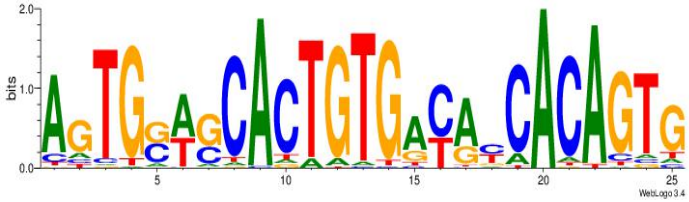
Alignment:

```
CACTGTGRTRTCACAGTGSWSCACT
--------DDCCAMAGTCHB-----
```

Original motif Consensus sequence: CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence: AGTGSWSCACTGTGAMAMCACAGTG

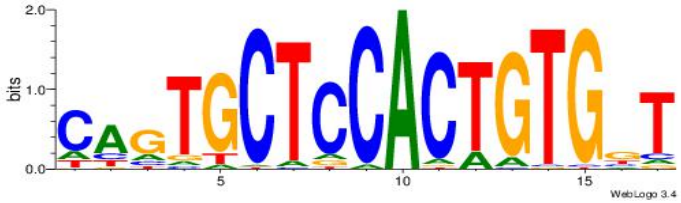


Dataset #:	4
Motif ID:	70
Motif name:	CagTGCTCCACTGTGgT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	6
Number of overlap:	12
Similarity score:	0.0676046

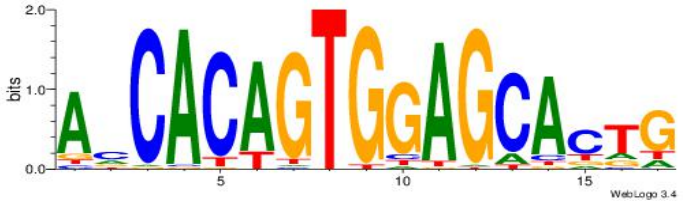
Alignment:

```
ABCACAGTGGAGCACTG
VDGACTRTGGDD-----
```

Original motif Consensus sequence: CAGTGCTCCACTGTGBT



Reverse complement motif Consensus sequence: ABCACAGTGGAGCACTG

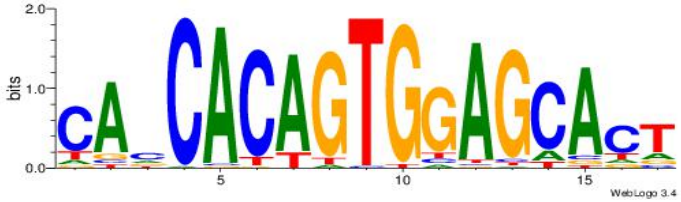


Dataset #:	4
Motif ID:	76
Motif name:	CAcCACAGTGGAGCAct
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	6

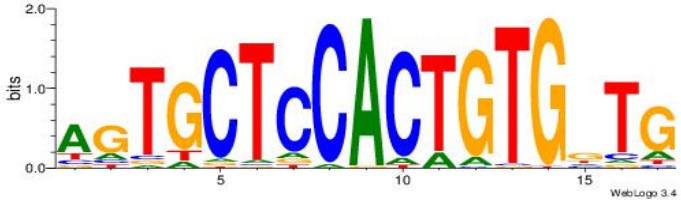
Number of overlap: 12
Similarity score: 0.0684312

Alignment:
AGTGCTCCACTGTGDTG
-----VDGACTRTGGDD

Original motif Consensus sequence: CAHCACAGTGGAGCACT



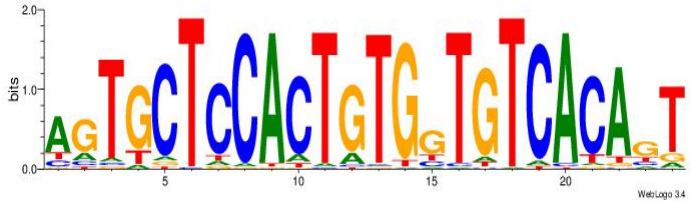
Reverse complement motif Consensus sequence: AGTGCTCCACTGTGDTG



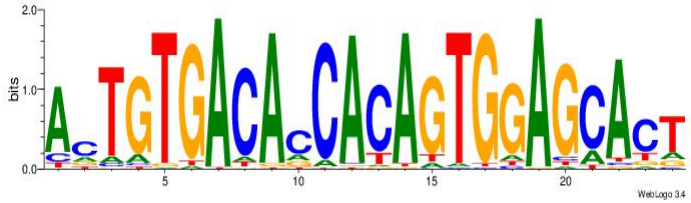
Dataset #: 4
Motif ID: 77
Motif name: AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 6
Number of overlap: 12
Similarity score: 0.0695137

Alignment:
AGTGCTCCACTGTGGTGTCACAGT
-----VDGACTRTGGDD-------

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT

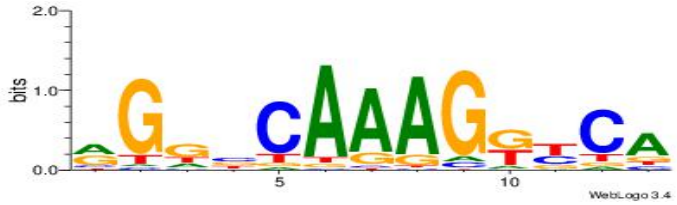


Dataset #:	3
Motif ID:	51
Motif name:	HNF4A
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	12
Similarity score:	0.0717637

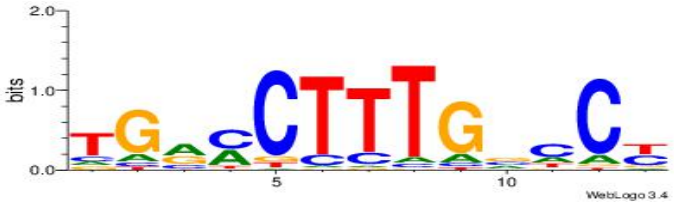
Alignment:

```
RGGBCAAAGKYCA
-DDCCAMAGTCHB
```

Original motif Consensus sequence: RGGBCAAAGKYCA



Reverse complement motif Consensus sequence: TGMYCTTTGBCCK



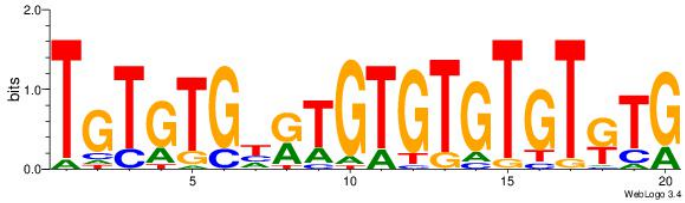
Dataset #:	5
Motif ID:	92
Motif name:	TFM11
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	8
Number of overlap:	12
Similarity score:	0.0751124

Alignment:

```
CAMACACACACAYDCACACA
-DDCCAMAGTCHB-------
```

Original motif Consensus sequence: CAMACACACACAYDCACACA

Reverse complement motif Consensus sequence: TGTGTGDKTGTGTGTGTRTG

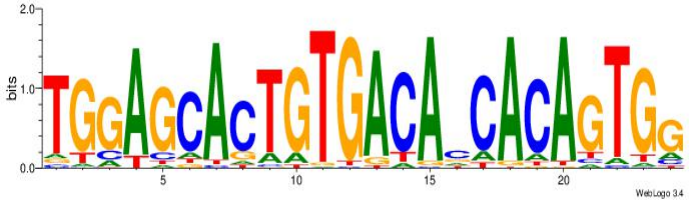


Dataset #:	4
Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4

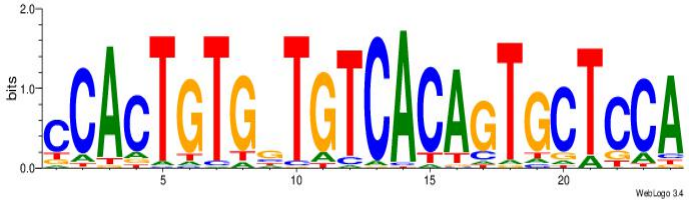
Number of overlap: 12
Similarity score: 0.075392

Alignment:
CCACTGTGVTGTCACAGTGCTCCA
---DDCCAMAGTCHB---------

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



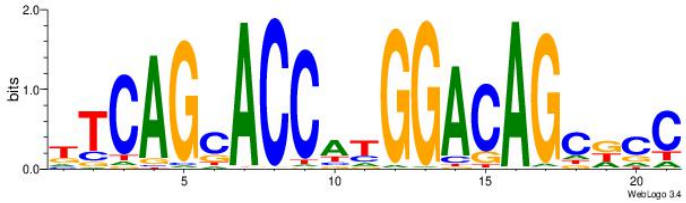
Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA



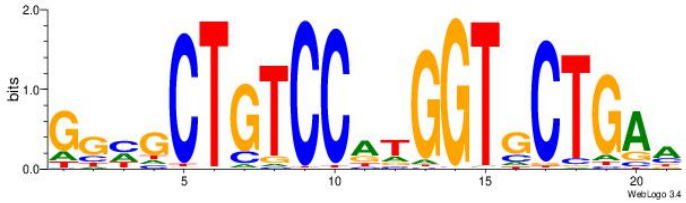
Dataset #: 3
Motif ID: 57
Motif name: REST
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 4
Number of overlap: 12
Similarity score: 0.0784446

Alignment:
GGYGCTGTCCATGGTGCTGAA
---DDCCAMAGTCHB------

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA

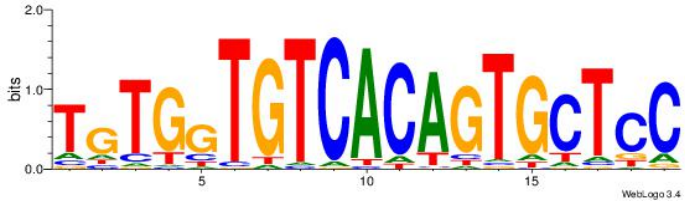


Dataset #:	4
Motif ID:	67
Motif name:	TgTGgTGTCACAGTGCTCC
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	12
Similarity score:	0.0786999

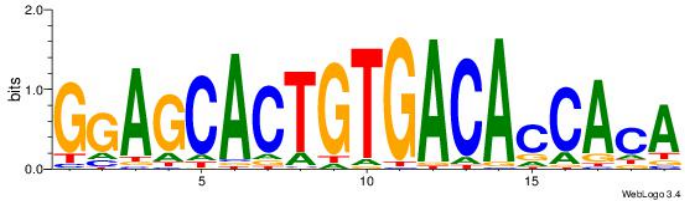
Alignment:

```
TGTGGTGTCACAGTGCTCC
-----DDCCAMAGTCHB--
```

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA

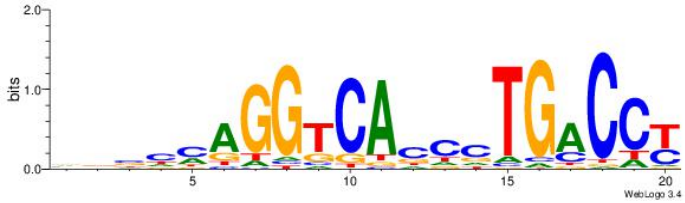


Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	12
Similarity score:	0.0800522

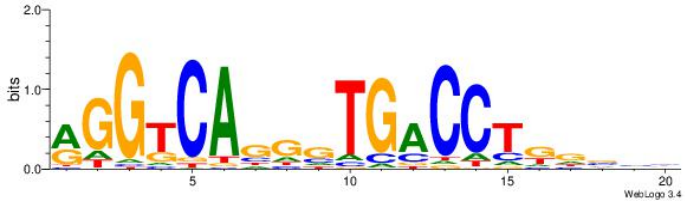
Alignment:

```
VDBHMAGGTCACCCTGACCY
DDCCAMAGTCHB--------
```

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



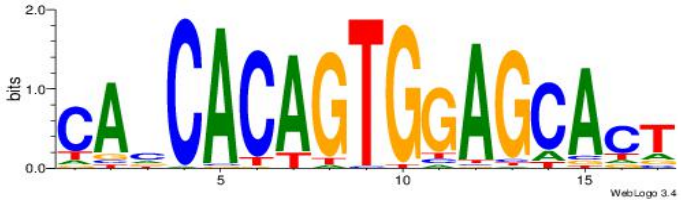
Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

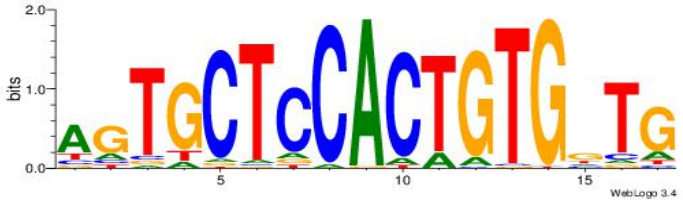


Dataset #: 4 Motif ID: 76 Motif name: CAcCACAGTGGAGCAct

Original motif Consensus sequence: CAHCACAGTGGAGCACT

Reverse complement motif Consensus sequence: AGTGCTCCACTGTGDTG





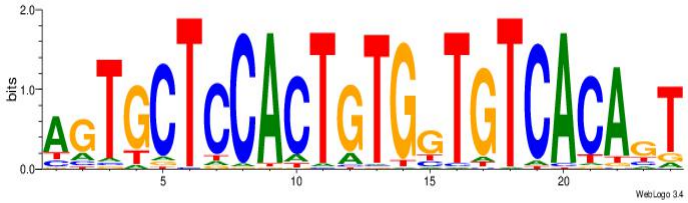
Best Matches for Motif ID 76 (Highest to Lowest)

Dataset #:	4
Motif ID:	77
Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	8
Number of overlap:	17
Similarity score:	0.00742502

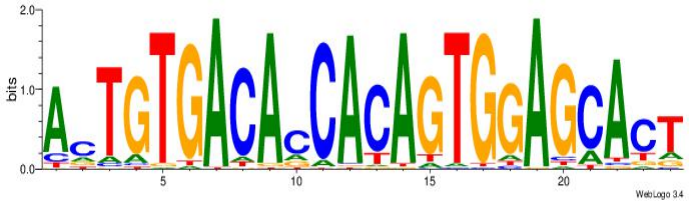
Alignment:

```
ACTGTGACACCACAGTGGAGCACT
-------CAHCACAGTGGAGCACT
```

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT

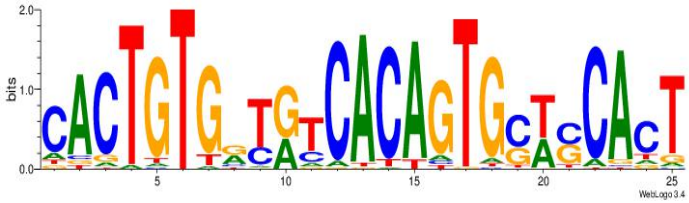


Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	17
Similarity score:	0.0456803

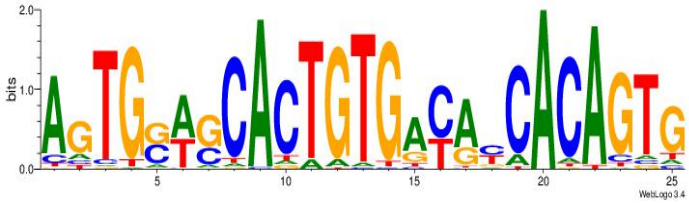
Alignment:

```
CACTGTGRTRTCACAGTGSWSCACT
--------CAHCACAGTGGAGCACT
```

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG

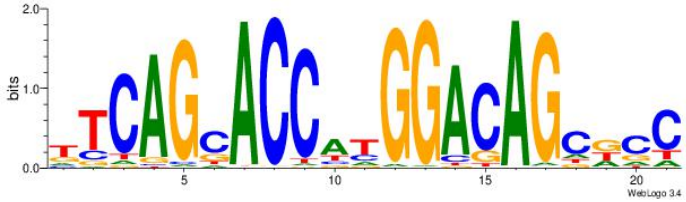


Dataset #:	3
Motif ID:	57
Motif name:	REST
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3

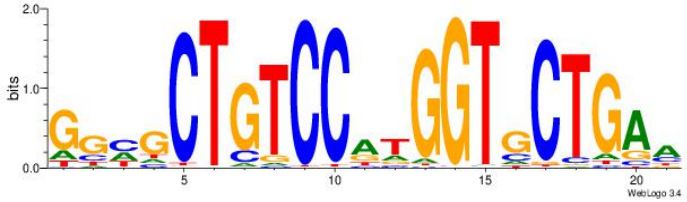
Number of overlap: 17
Similarity score: 0.0894884

Alignment:
TTCAGCACCATGGACAGCKCC
--CAHCACAGTGGAGCACT--

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



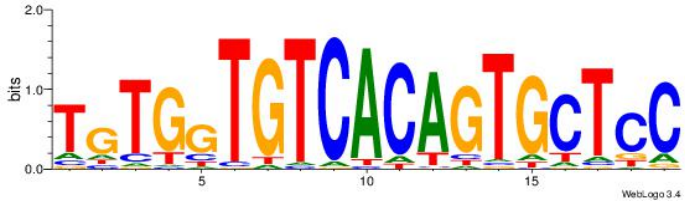
Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA



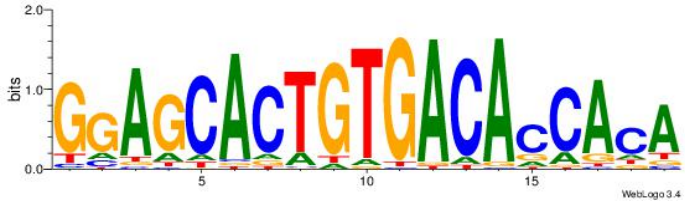
Dataset #: 4
Motif ID: 67
Motif name: TgTGgTGTCACAGTGCTCC
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 2
Number of overlap: 17
Similarity score: 0.0962536

Alignment:
GGAGCACTGTGACACCACA
-CAHCACAGTGGAGCACT-

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA

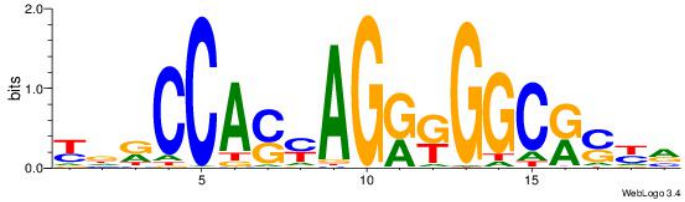


Dataset #:	3
Motif ID:	66
Motif name:	CTCF
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	17
Similarity score:	0.0978126

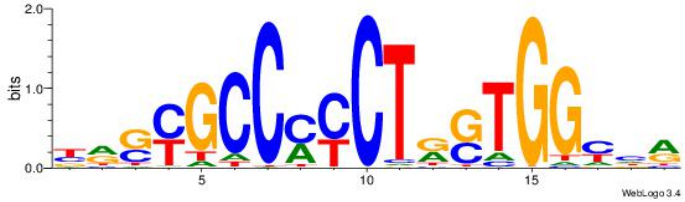
Alignment:

```
YDRCCASYAGRKGGCRSYV
-CAHCACAGTGGAGCACT-
```

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM

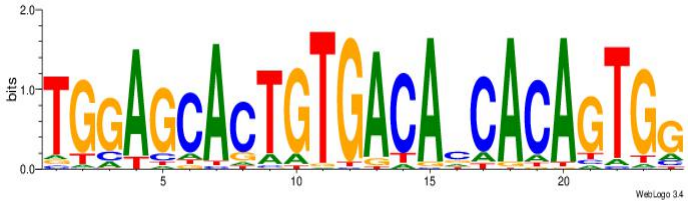


Dataset #:	4
Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	17
Similarity score:	0.106708

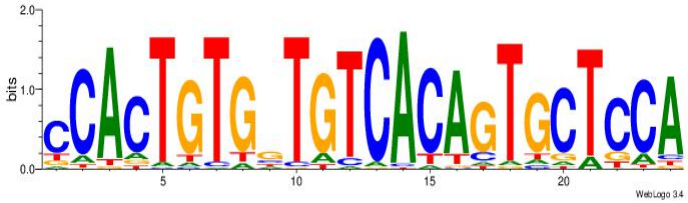
Alignment:

```
CCACTGTGVTGTCACAGTGCTCCA
-----AGTGCTCCACTGTGDTG--
```

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

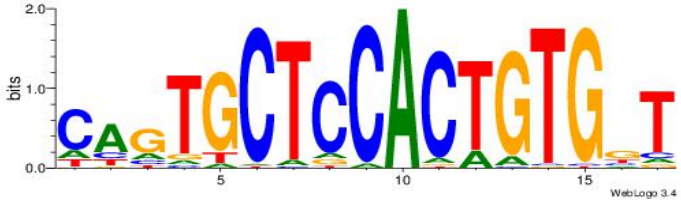


Dataset #:	4
Motif ID:	70
Motif name:	CagTGCTCCACTGTGgT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2

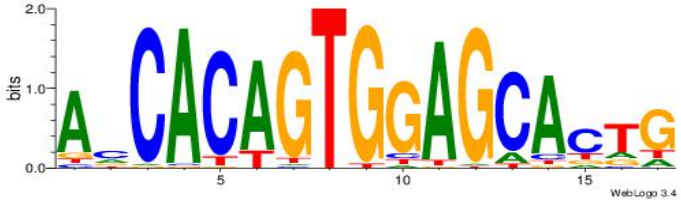
Number of overlap: 16
Similarity score: 0.5

Alignment:
-CAGTGCTCCACTGTGBT
AGTGCTCCACTGTGDTG-

Original motif Consensus sequence: CAGTGCTCCACTGTGBT



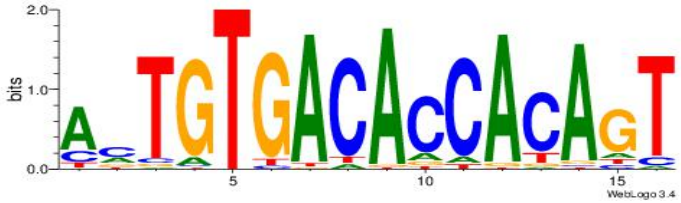
Reverse complement motif Consensus sequence: ABCACAGTGGAGCACTG



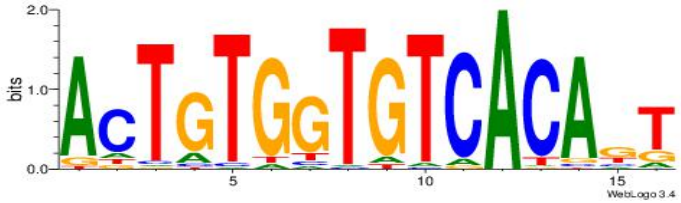
Dataset #: 4
Motif ID: 71
Motif name: AmTGTGACACCACAGT
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 1
Number of overlap: 16
Similarity score: 0.610921

Alignment:
ACTGTGGTGTCACART-
CAHCACAGTGGAGCACT

Original motif Consensus sequence: AMTGTGACACCACAGT



Reverse complement motif Consensus sequence: ACTGTGGTGTCACART



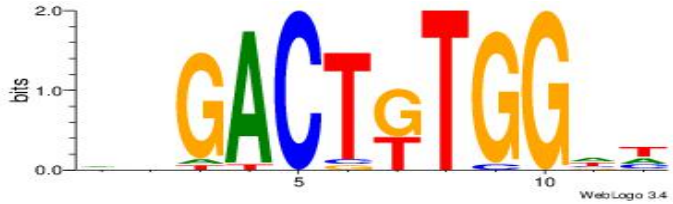
Dataset #:	4
Motif ID:	75
Motif name:	wwCCAmAGTCmt
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	12
Similarity score:	2.5839

Alignment:

```
-----VDGACTRTGGDD
AGTGCTCCACTGTGDTG
```

Original motif Consensus sequence: DDCCAMAGTCHB

Reverse complement motif Consensus sequence: VDGACTRTGGDD

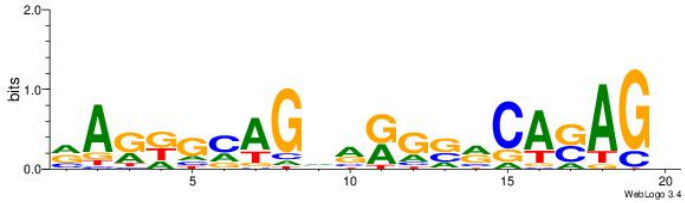


Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	9
Number of overlap:	12
Similarity score:	2.60274

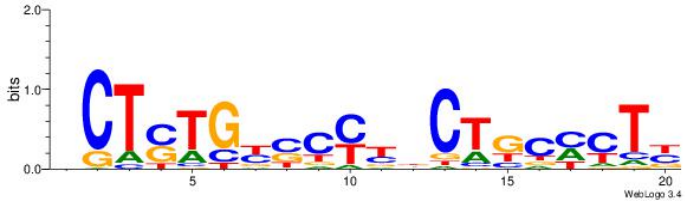
Alignment:

```
VCTSTGKSCMKBCTRCYCTK-----
--------AGTGCTCCACTGTGDTG
```

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



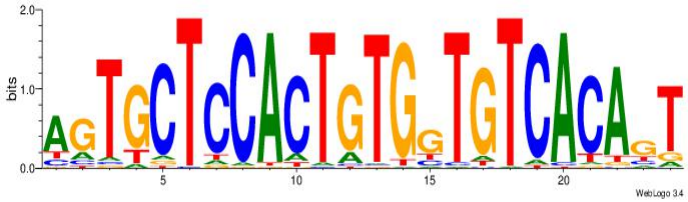
Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK

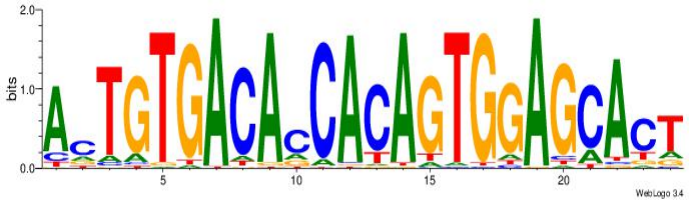


Dataset #: 4 Motif ID: 77 Motif name: AgTGCTCCACTGTGgTGTCACAgT

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT

Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT





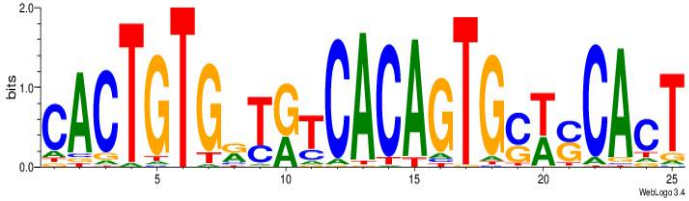
Best Matches for Motif ID 77 (Highest to Lowest)

Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	24
Similarity score:	0.0409586

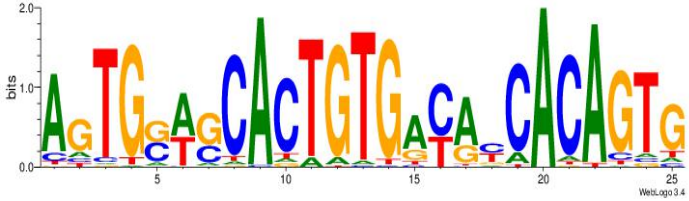
Alignment:

```
AGTGSWSCACTGTGAMAMCACAGTG
-AGTGCTCCACTGTGGTGTCACAGT
```

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG

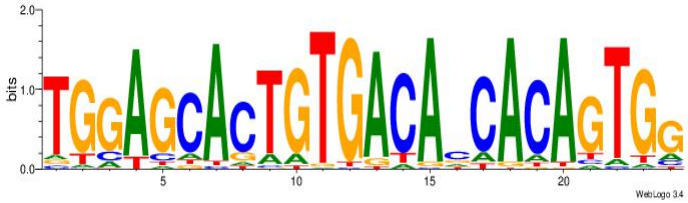


Dataset #:	4
Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	22
Similarity score:	1.06364

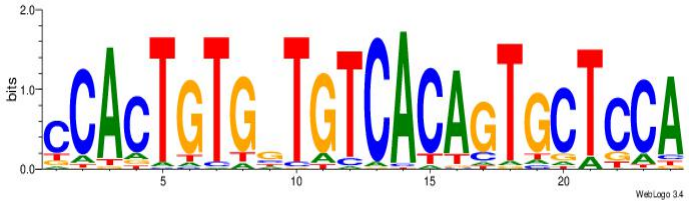
Alignment:

```
CCACTGTGVTGTCACAGTGCTCCA--
--ACTGTGACACCACAGTGGAGCACT
```

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

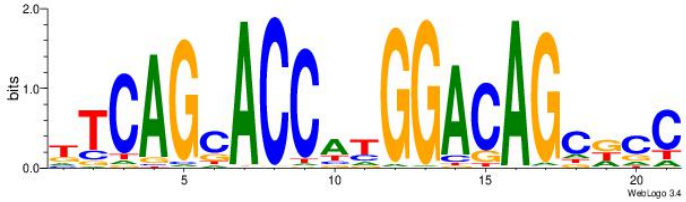


Dataset #:	3
Motif ID:	57
Motif name:	REST
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3

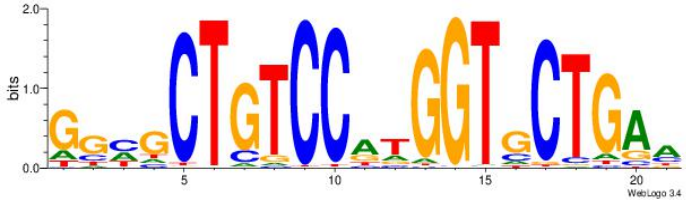
Number of overlap: 19
Similarity score: 2.59599

Alignment:
TTCAGCACCATGGACAGCKCC-----
--ACTGTGACACCACAGTGGAGCACT

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



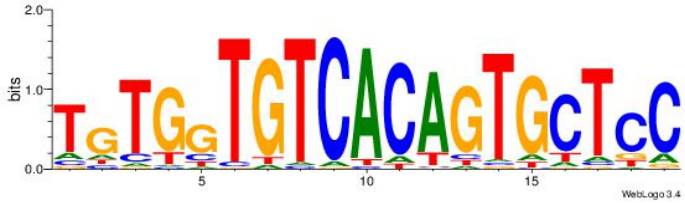
Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA



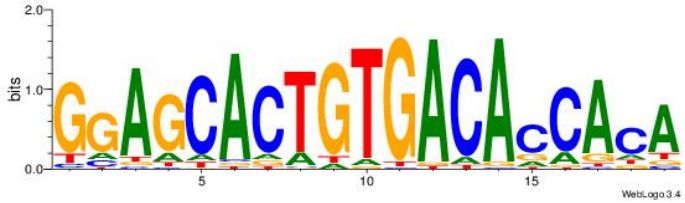
Dataset #: 4
Motif ID: 67
Motif name: TgTGgTGTCACAGTGCTCC
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 2
Number of overlap: 18
Similarity score: 3.10123

Alignment:
------GGAGCACTGTGACACCACA
ACTGTGACACCACAGTGGAGCACT-

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA

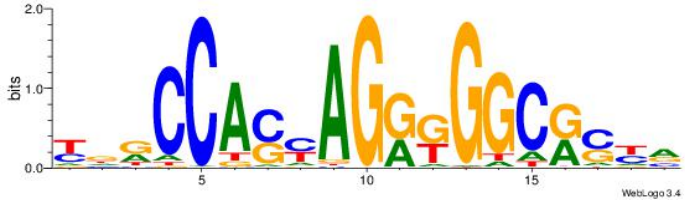


Dataset #:	3
Motif ID:	66
Motif name:	CTCF
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	18
Similarity score:	3.10186

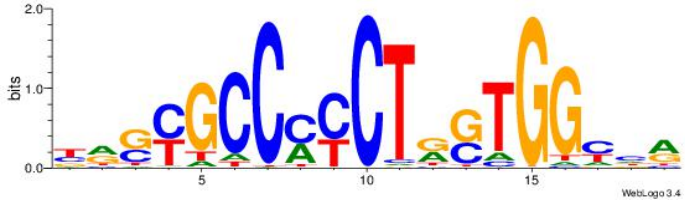
Alignment:

```
------BMSMGCCYMCTKSTGGMHM
AGTGCTCCACTGTGGTGTCACAGT-
```

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM

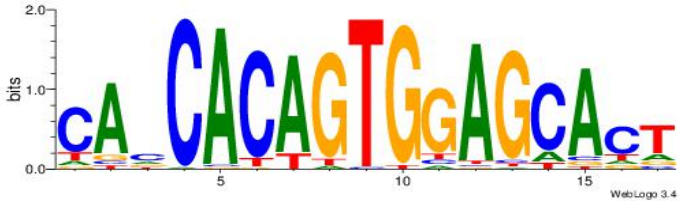


Dataset #:	4
Motif ID:	76
Motif name:	CAcCACAGTGGAGCAct
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	17
Similarity score:	3.50248

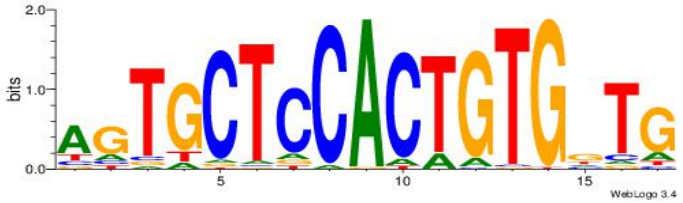
Alignment:

```
-------AGTGCTCCACTGTGDTG
AGTGCTCCACTGTGGTGTCACAGT
```

Original motif Consensus sequence: CAHCACAGTGGAGCACT



Reverse complement motif Consensus sequence: AGTGCTCCACTGTGDTG

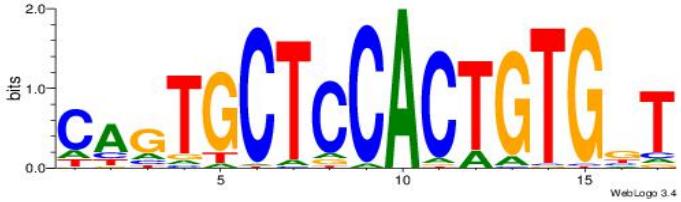


Dataset #:	4
Motif ID:	70
Motif name:	CagTGCTCCACTGTGgT
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2

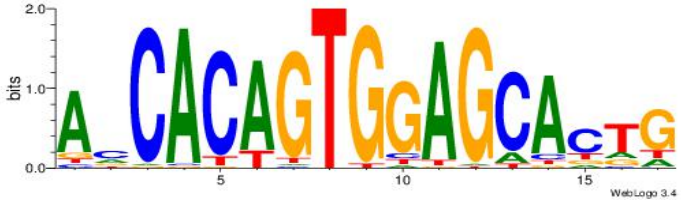
Number of overlap: 16
Similarity score: 4

Alignment:
CAGTGCTCCACTGTGBT--------
-AGTGCTCCACTGTGGTGTCACAGT

Original motif Consensus sequence: CAGTGCTCCACTGTGBT



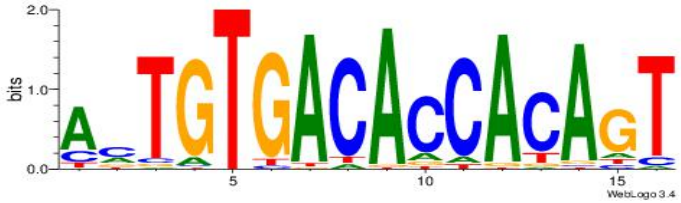
Reverse complement motif Consensus sequence: ABCACAGTGGAGCACTG



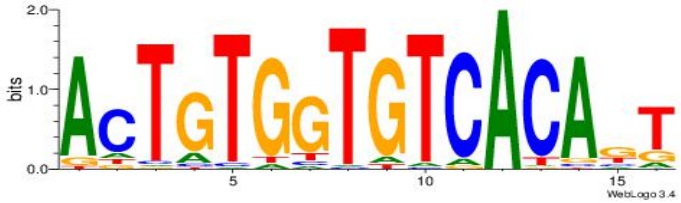
Dataset #: 4
Motif ID: 71
Motif name: AmTGTGACACCACAGT
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Backward
Position number: 1
Number of overlap: 16
Similarity score: 4.0041

Alignment:
--------AMTGTGACACCACAGT
ACTGTGACACCACAGTGGAGCACT

Original motif Consensus sequence: AMTGTGACACCACAGT



Reverse complement motif Consensus sequence: ACTGTGGTGTCACART

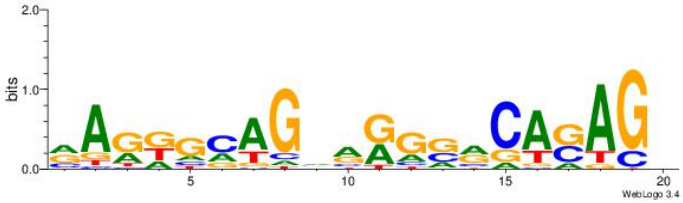


Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	5
Number of overlap:	16
Similarity score:	4.10485

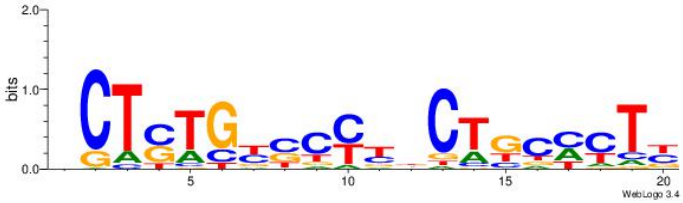
Alignment:

```
RAGKGMAGVRRGSRCASAGV--------
----ACTGTGACACCACAGTGGAGCACT
```

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK

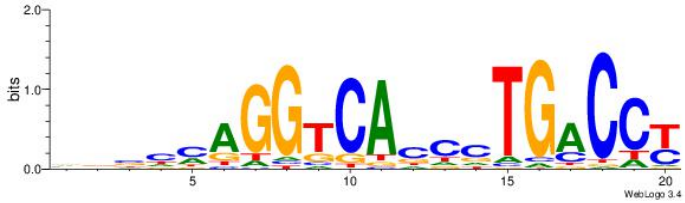


Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	6
Number of overlap:	15
Similarity score:	4.59996

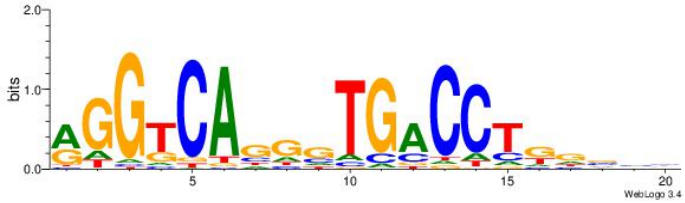
Alignment:

```
MGGTCAGGGTGACCTRDBHV---------
-----ACTGTGACACCACAGTGGAGCACT
```

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



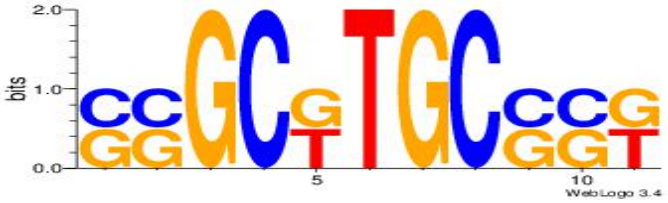
Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV



Dataset #: 4 Motif ID: 78 Motif name: ssGCkTGCssk

Original motif Consensus sequence: SSGCKTGCSSK

Reverse complement motif Consensus sequence: YSSGCAYGCSS



Best Matches for Motif ID 78 (Highest to Lowest)

Dataset #:	4
Motif ID:	82
Motif name:	gCGCGCsCgsG
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0230178

Alignment:

```
GCGCGCSCGCG
SSGCKTGCSSK
```

Original motif Consensus sequence: GCGCGCSCGCG

Reverse complement motif Consensus sequence: CGCGSGCGCGC

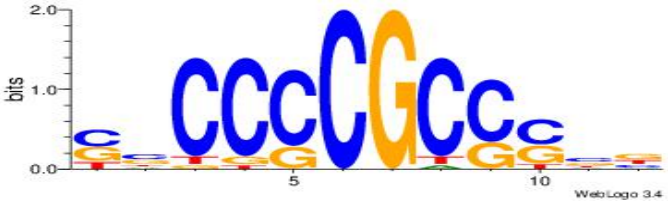
Dataset #:	4

Motif ID:	74
Motif name:	ssCCCCGCSssk
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	11
Similarity score:	0.036087

Alignment:

```
BBSGGCGGGGBS
-YSSGCAYGCSS
```

Original motif Consensus sequence: SBCCCCGCCSBB



Reverse complement motif Consensus sequence: BBSGGCGGGGBS

Dataset #:	4
Motif ID:	68
Motif name:	sscCCCGCGcs
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0375477

Alignment:
SBCGCGGGGSB
YSSGCAYGCSS

Original motif Consensus sequence: BSCCCCGCGBS

Reverse complement motif Consensus sequence: SBCGCGGGGSB

Dataset #:	4
Motif ID:	79
Motif name:	cCGCGGrCACG
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0461039

Alignment:
CCGCGGRCACG
SSGCKTGCSSK

Original motif Consensus sequence: CCGCGGRCACG

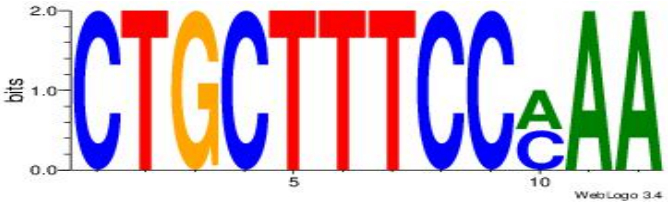
Reverse complement motif Consensus sequence: CGTGKCCGCGG

Dataset #:	1
Motif ID:	21
Motif name:	Motif 21
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	11
Similarity score:	0.0529221

Alignment:

```
CTGCTTTCCMAA
SSGCKTGCSSK-
```

Original motif Consensus sequence: CTGCTTTCCMAA



Reverse complement motif Consensus sequence: TTYGGAAAGCAG

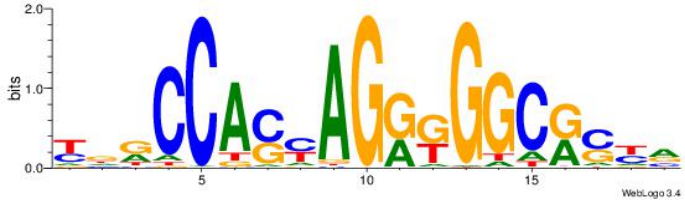
Dataset #:	3
Motif ID:	66

Motif name:	CTCF
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	8
Number of overlap:	11
Similarity score:	0.0533963

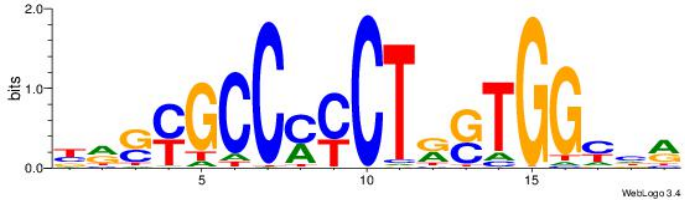
Alignment:

```
YDRCCASYAGRKGGCRSYV
-------SSGCKTGCSSK-
```

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



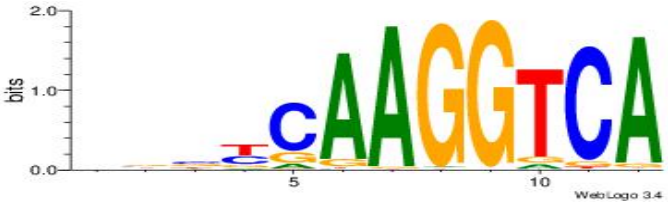
Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM



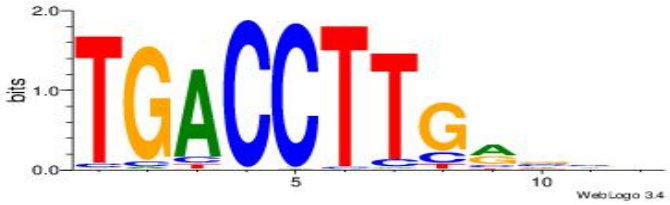
Dataset #:	3
Motif ID:	54
Motif name:	Esrrb
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	11
Similarity score:	0.0543224

Alignment:
VBBYCAAGGTCA
-YSSGCAYGCSS

Original motif Consensus sequence: VBBYCAAGGTCA



Reverse complement motif Consensus sequence: TGACCTTGMBBB

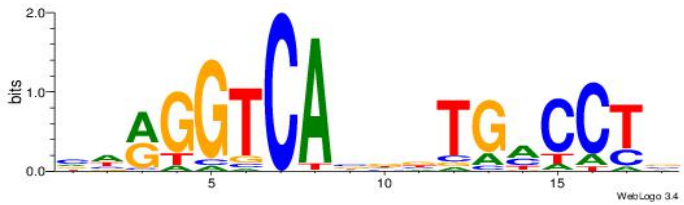


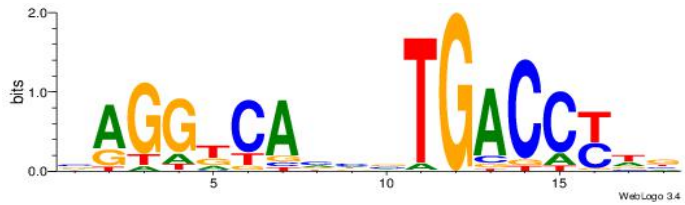
Dataset #:	3
Motif ID:	59
Motif name:	ESR2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	11
Similarity score:	0.0563598

Alignment:
VHRGGTCABDBTGMCCTB
-----YSSGCAYGCSS--

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB

Reverse complement motif Consensus sequence: BAGGYCABHBTGACCKHV



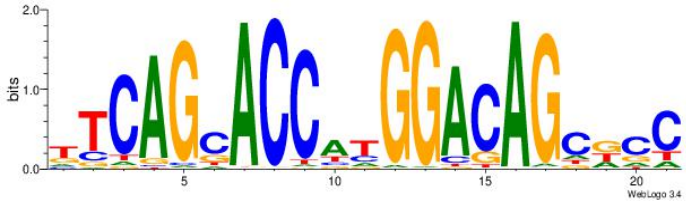


Dataset #:	3
Motif ID:	57
Motif name:	REST
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	10
Number of overlap:	11
Similarity score:	0.0593846

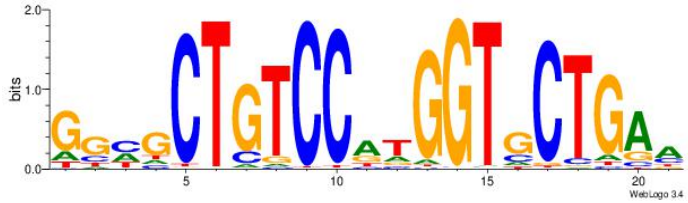
Alignment:

```
TTCAGCACCATGGACAGCKCC
-YSSGCAYGCSS---------
```

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA



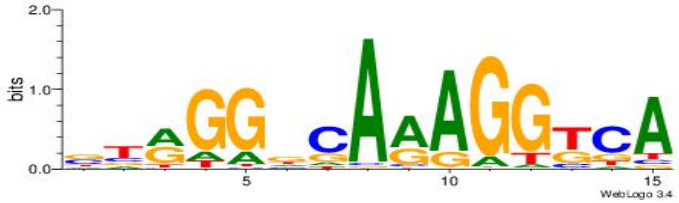
Dataset #:	3

Motif ID:	64
Motif name:	PPARGRXRA
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	11
Similarity score:	0.0598714

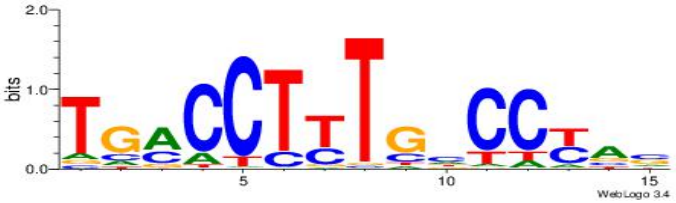
Alignment:

```
BTRGGDCARAGGKCA
--YSSGCAYGCSS--
```

Original motif Consensus sequence: BTRGGDCARAGGKCA



Reverse complement motif Consensus sequence: TGRCCTKTGHCCK



Dataset #: 4 Motif ID: 79 Motif name: cCGCGGrCACG

Original motif Consensus sequence: CCGCGGRCACG

Reverse complement motif Consensus sequence: CGTGKCCGCGG

Best Matches for Motif ID 79 (Highest to Lowest)

Dataset #:	4
Motif ID:	82
Motif name:	gCGCGCsCgsG
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.010473

Alignment:
GCGCGCSCGCG
CCGCGGRCACG

Original motif Consensus sequence: GCGCGCSCGCG

Reverse complement motif Consensus sequence: CGCGSGCGCGC

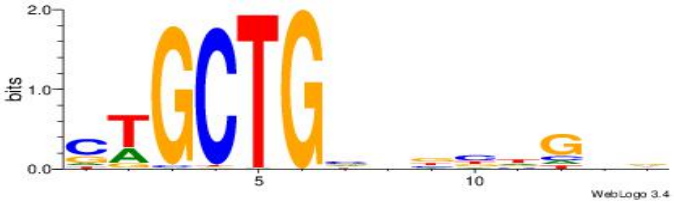
Dataset #:	5
Motif ID:	88
Motif name:	TFF11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement

Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0478408

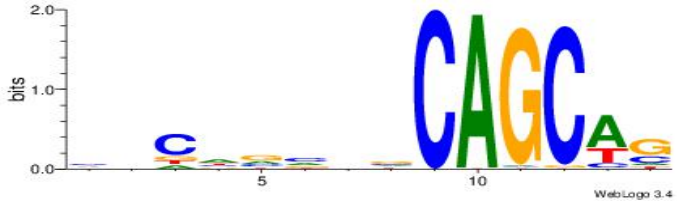
Alignment:

```
HVCDBBDBCAGCAG
---CGTGKCCGCGG
```

Original motif Consensus sequence: CTGCTGBDBBDGBD



Reverse complement motif Consensus sequence: HVCDBBDBCAGCA

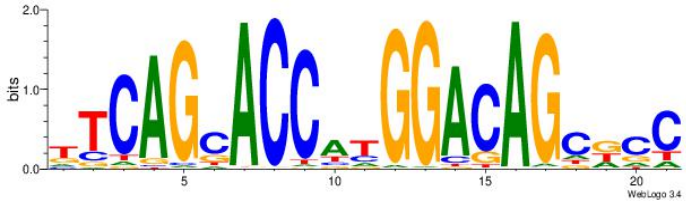


Dataset #:	3
Motif ID:	57
Motif name:	REST
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	4
Number of overlap:	11
Similarity score:	0.0484441

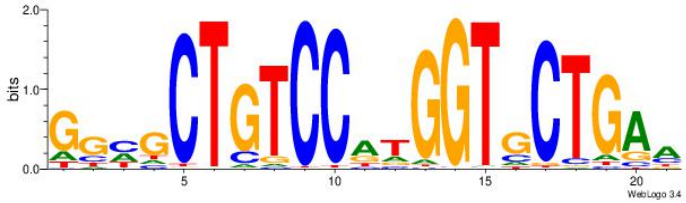
Alignment:

```
TTCAGCACCATGGACAGCKCC
-------CCGCGGRCACG---
```

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA

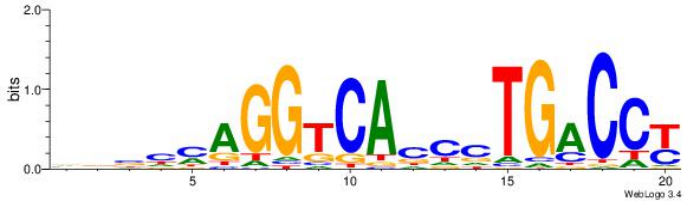


Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	11
Similarity score:	0.0486581

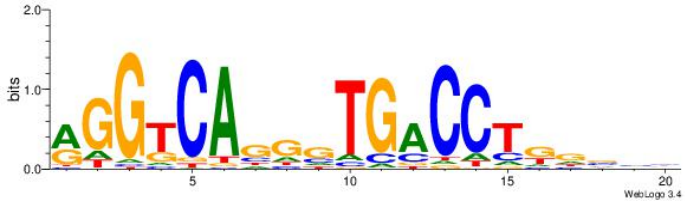
Alignment:

```
MGGTCAGGGTGACCTRDBHV
-------CGTGKCCGCGG--
```

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

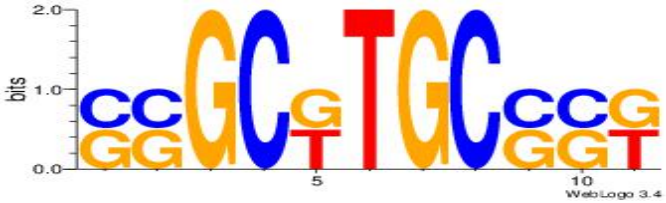


Dataset #:	4
Motif ID:	78
Motif name:	ssGCkTGCssk
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0503056

Alignment:

```
SSGCKTGCSSK
CCGCGGRCACG
```

Original motif Consensus sequence: SSGCKTGCSSK



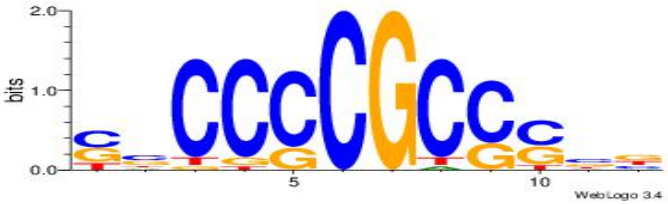
Reverse complement motif Consensus sequence: YSSGCAYGCSS

Dataset #:	4
Motif ID:	74
Motif name:	ssCCCCGCSssk
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	11

Similarity score: 0.055777

Alignment:
BBSGGCGGGGBS
CGTGKCCGCGG-

Original motif Consensus sequence: SBCCCCGCCSBB



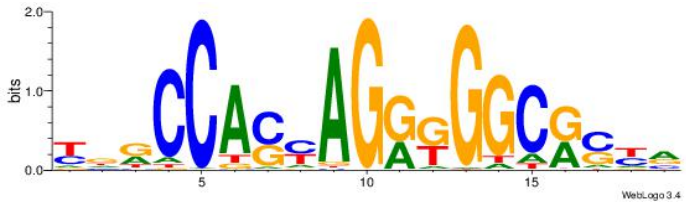
Reverse complement motif Consensus sequence: BBSGGCGGGGBS

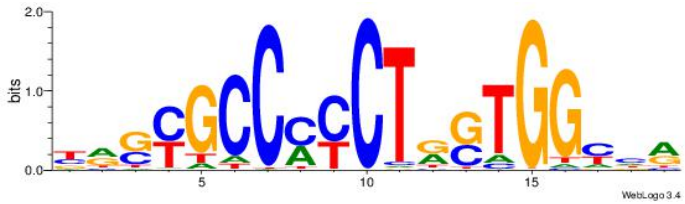
Dataset #: 3
Motif ID: 66
Motif name: CTCF
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 8
Number of overlap: 11
Similarity score: 0.0588663

Alignment:
YDRCCASYAGRKGGCRSYV
-------CCGCGGRCACG-

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV

Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM



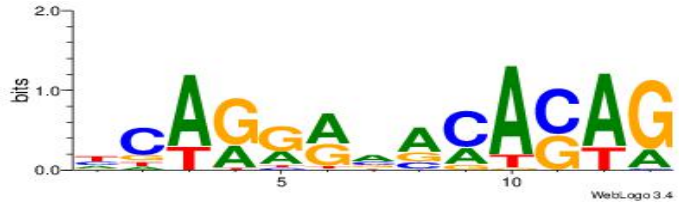


Dataset #:	1
Motif ID:	3
Motif name:	Motif 3
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	11
Similarity score:	0.0597806

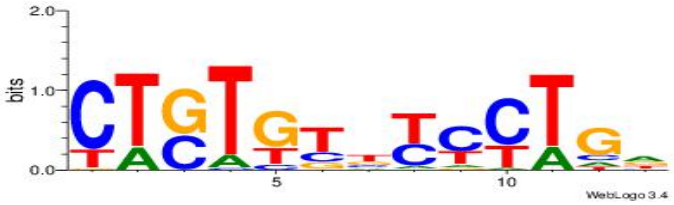
Alignment:

```
HCAGRRVACASAG
-CCGCGGRCACG-
```

Original motif Consensus sequence: HCAGRRVACASAG



Reverse complement motif Consensus sequence: CTSTGTBKMCTGH



Dataset #:	1
Motif ID:	2

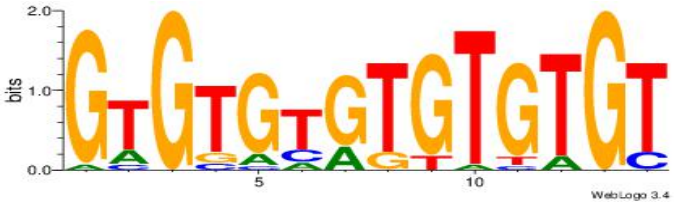
Motif name:	Motif 2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	11
Similarity score:	0.0624268

Alignment:

```
GTGTGTGTGTGTGT
-CGTGKCCGCGG--
```

Original motif Consensus sequence: ACACACACACACAC

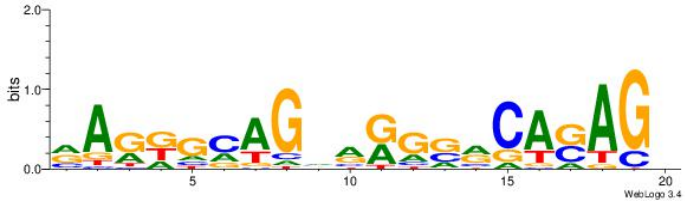
Reverse complement motif Consensus sequence: GTGTGTGTGTGTG



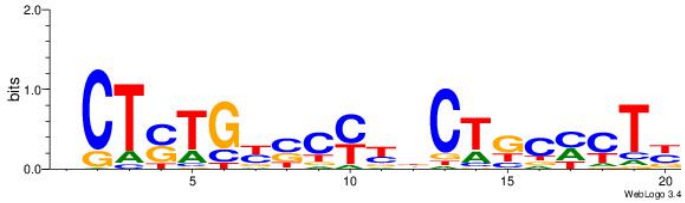
Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	5
Number of overlap:	11
Similarity score:	0.0625015

Alignment:
RAGKGMAGVRRGSRCASAGV
-----CCGCGGRCACG----

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



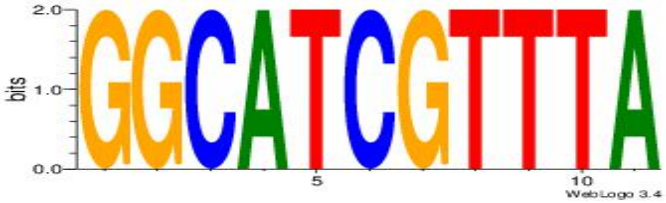
Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK



Dataset #: 4 Motif ID: 80 Motif name: taaacgatgcc

Original motif Consensus sequence: TAAACGATGCC

Reverse complement motif Consensus sequence: GGCATCGTTTA



Best Matches for Motif ID 80 (Highest to Lowest)

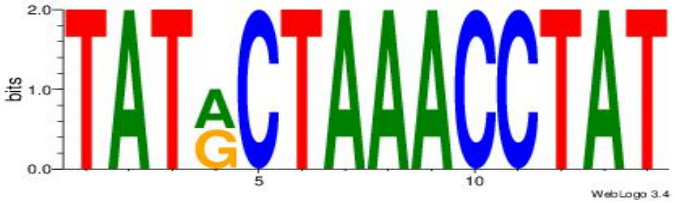
Dataset #:	1
Motif ID:	46
Motif name:	Motif 46
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward

Position number: 1
Number of overlap: 11
Similarity score: 0.102273

Alignment:
TATKCTAAACCTAT
---TAAACGATGCC

Original motif Consensus sequence: ATAGGTTTAGYATA

Reverse complement motif Consensus sequence: TATKCTAAACCTAT

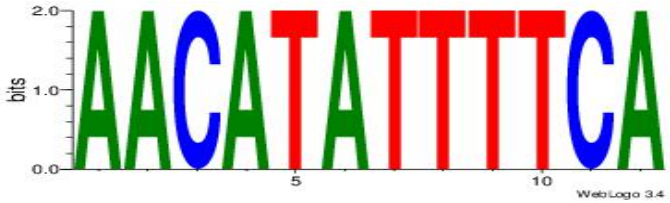


Dataset #: 1
Motif ID: 9
Motif name: Motif 9
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 2
Number of overlap: 11
Similarity score: 0.113636

Alignment:
TGAAAATATGTT
TAAACGATGCC-

Original motif Consensus sequence: AACATATTTTCA

Reverse complement motif Consensus sequence: TGAAAATATGTT

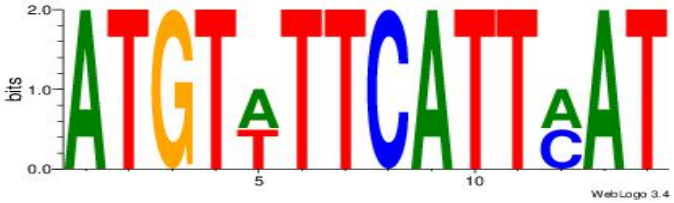


Dataset #:	1
Motif ID:	23
Motif name:	Motif 23
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	11
Similarity score:	0.113636

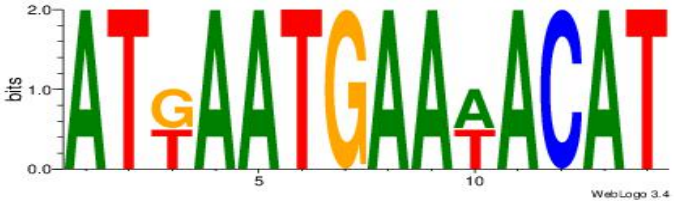
Alignment:

```
ATGTWTTCATTMAT
-GGCATCGTTTA--
```

Original motif Consensus sequence: ATGTWTTCATTMAT



Reverse complement motif Consensus sequence: ATYAATGAAWACA



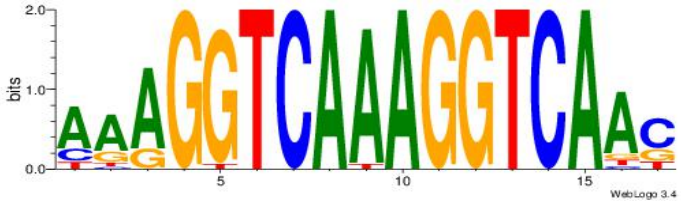
Dataset #:	3

Motif ID:	60
Motif name:	NR1H2RXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	11
Similarity score:	0.113636

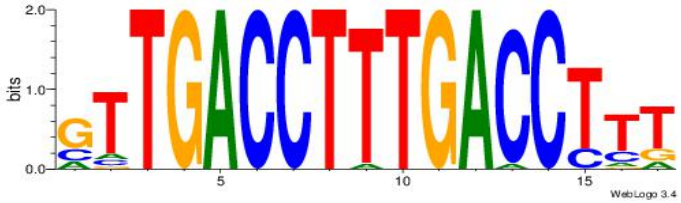
Alignment:

```
GTTGACCTTTGACCTTT
----TAAACGATGCC--
```

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC



Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT



Dataset #:	3
Motif ID:	52
Motif name:	NR2F1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11

Similarity score: 0.118881

Alignment:
TGAMCTTTGMMCYT
TAAACGATGCC---

Original motif Consensus sequence: TGAMCTTTGMMCYT

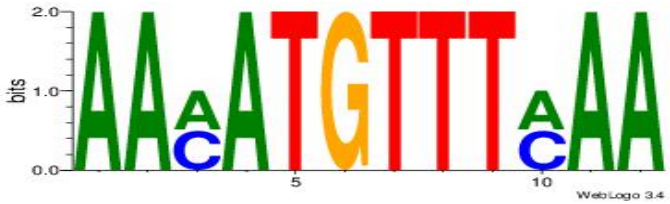
Reverse complement motif Consensus sequence: AKGYYCAAAGRTCA

Dataset #: 1
Motif ID: 11
Motif name: Motif 11
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 2
Number of overlap: 11
Similarity score: 0.125

Alignment:
TTYAAACATYTT
TAAACGATGCC-

Original motif Consensus sequence: AAMATGTTTMAA

Reverse complement motif Consensus sequence: TTYAAACATYTT

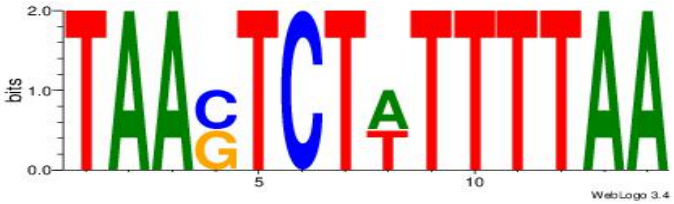


Dataset #:	1
Motif ID:	45
Motif name:	Motif 45
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	11
Similarity score:	0.125

Alignment:

```
TTAAAAWAGASTTA
--TAAACGATGCC-
```

Original motif Consensus sequence: TAASTCTWTTTTAA



Reverse complement motif Consensus sequence: TTAAAAWAGASTT

Dataset #:	1
Motif ID:	10

Motif name:	Motif 10
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	10
Similarity score:	0.5875

Alignment:

```
AAACAATYTTT-
-TAAACGATGCC
```

Original motif Consensus sequence: AAAMATTGTTT

Reverse complement motif Consensus sequence: AAACAATYTTT

Dataset #:	1
Motif ID:	30
Motif name:	Motif 30
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	10
Similarity score:	0.6

Alignment:
AAAAGCAGCAA-
-TAAACGATGCC

Original motif Consensus sequence: TTGCTGCTTTT

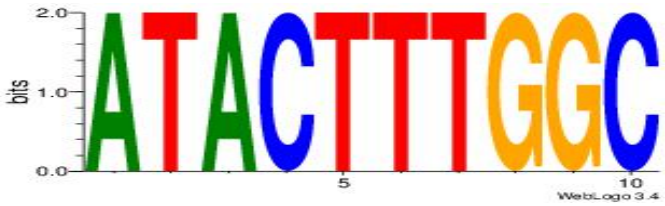
Reverse complement motif Consensus sequence: AAAAGCAGCAA

Dataset #:	4
Motif ID:	69
Motif name:	atactttggc
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	10
Similarity score:	0.6

Alignment:
-ATACTTTGGC
TAAACGATGCC

Original motif Consensus sequence: ATACTTTGGC

Reverse complement motif Consensus sequence: GCCAAAGTAT



Dataset #: 4 **Motif ID: 81** **Motif name: ctatacggacg**

Original motif Consensus sequence: CTATACGGACG

Reverse complement motif Consensus sequence: CGTCCGTATAG

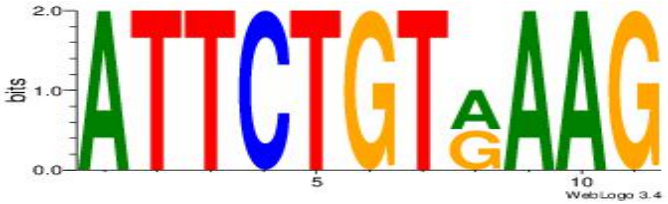
Best Matches for Motif ID 81 (Highest to Lowest)

Dataset #:	1
Motif ID:	27
Motif name:	Motif 27
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	11
Similarity score:	0.102273

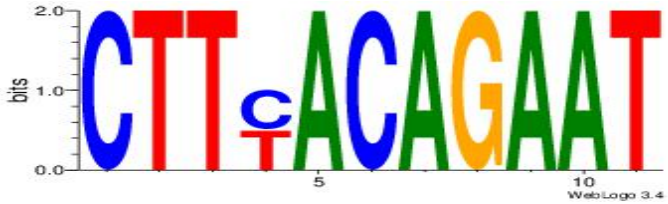
Alignment:

```
CTTKACAGAAT
CTATACGGACG
```

Original motif Consensus sequence: ATTCTGTRAAG



Reverse complement motif Consensus sequence: CTTKACAGAAT

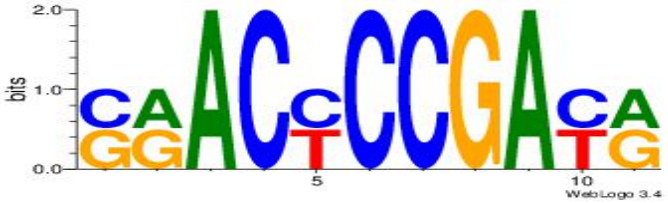


Dataset #:	4
Motif ID:	83
Motif name:	srACyCCGAyr
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.125

Alignment:

```
SRACYCCGAYR
CTATACGGACG
```

Original motif Consensus sequence: SRACYCCGAYR



Reverse complement motif Consensus sequence: KKTCGGKGTKS

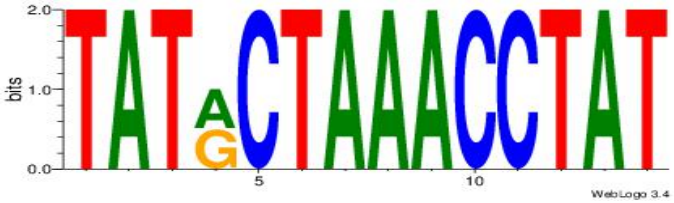
Dataset #:	1
Motif ID:	46
Motif name:	Motif 46
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	5
Number of overlap:	10
Similarity score:	0.6

Alignment:

```
-TATKCTAAACCTAT
CTATACGGACG----
```

Original motif Consensus sequence: ATAGGTTTAGYATA

Reverse complement motif Consensus sequence: TATKCTAAACCTAT

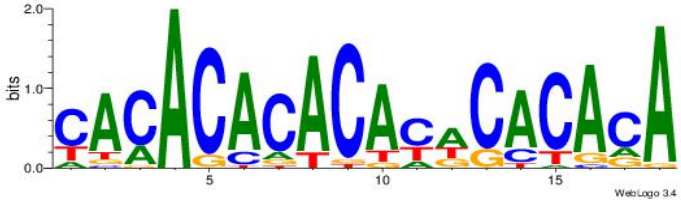


Dataset #:	5
Motif ID:	89
Motif name:	TFM1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	9
Number of overlap:	10

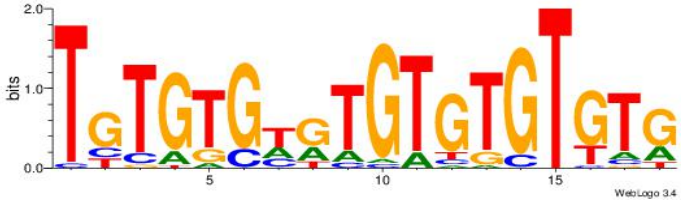
Similarity score: 0.624107

Alignment:
TGTGTGWGTGTGTGTGTG-
--------CGTCCGTATAG

Original motif Consensus sequence: CACACACACACWCACACA



Reverse complement motif Consensus sequence: TGTGTGWGTGTGTGTGTG

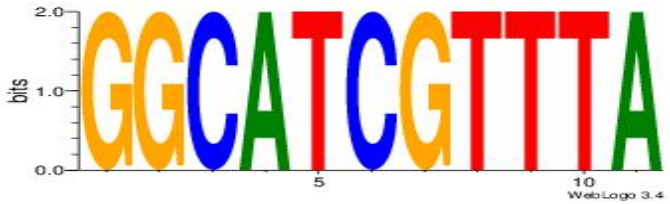


Dataset #:	4
Motif ID:	80
Motif name:	taaacgatgcc
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	10
Similarity score:	0.625

Alignment:
GGCATCGTTTA-
-CGTCCGTATAG

Original motif Consensus sequence: TAAACGATGCC

Reverse complement motif Consensus sequence: GGCATCGTTTA

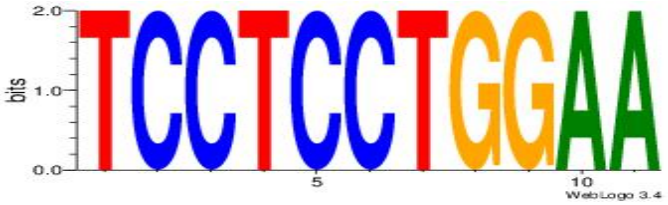


Dataset #:	1
Motif ID:	20
Motif name:	Motif 20
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	10
Similarity score:	0.625

Alignment:

```
TTCCAGGAGGA-
-CTATACGGACG
```

Original motif Consensus sequence: TCCTCCTGGAA



Reverse complement motif Consensus sequence: TTCCAGGAGGA

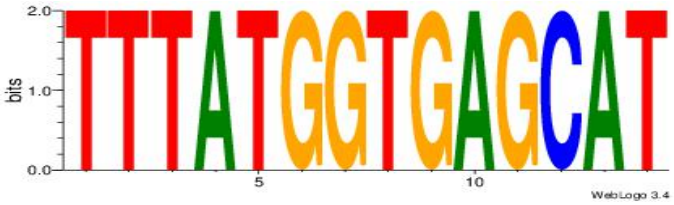
Dataset #:	1
Motif ID:	22

Motif name:	Motif 22
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	5
Number of overlap:	10
Similarity score:	0.625

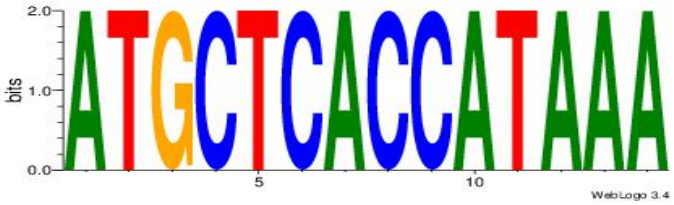
Alignment:

```
ATGCTCACCATAAA-
----CGTCCGTATAG
```

Original motif Consensus sequence: TTTATGGTGAGCAT



Reverse complement motif Consensus sequence: ATGCTCACCATAA



Dataset #:	1
Motif ID:	28
Motif name:	Motif 28
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	10
Similarity score:	0.625

Alignment:
-ATTTAGTAAA
CGTCCGTATAG

Original motif Consensus sequence: ATTTAGTAAA

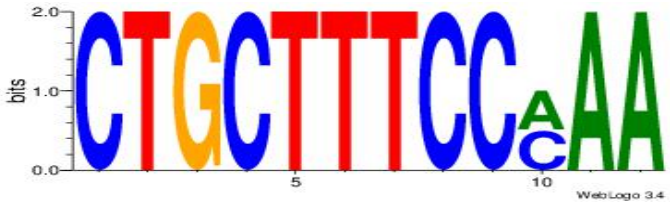
Reverse complement motif Consensus sequence: TTTACTAAAT

Dataset #:	1
Motif ID:	21
Motif name:	Motif 21
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	9
Similarity score:	1.09722

Alignment:
--TTYGGAAAGCAG
CGTCCGTATAG---

Original motif Consensus sequence: CTGCTTTCCMAA

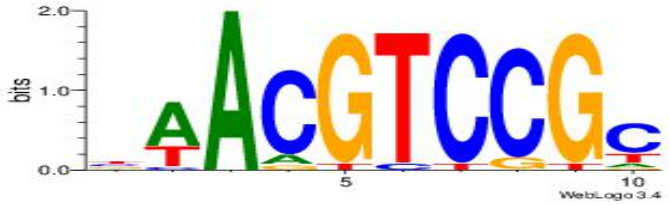
Reverse complement motif Consensus sequence: TTYGGAAAGCAG



Dataset #: 3
Motif ID: 63
Motif name: MIZF
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 2
Number of overlap: 9
Similarity score: 1.10694

Alignment:
GCGGACGTTV--
-CGTCCGTATAG

Original motif Consensus sequence: BAACGTCCGC



Reverse complement motif Consensus sequence: GCGGACGTTV

Dataset #: 4 Motif ID: 82 Motif name: gCGCGCsCgsG

Original motif Consensus sequence: GCGCGCSCGCG

Reverse complement motif Consensus sequence: CGCGSGCGCGC

Best Matches for Motif ID 82 (Highest to Lowest)

Dataset #:	4
Motif ID:	79
Motif name:	cCGCGGrCACG
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0131931

Alignment:

```
CCGCGGRCACG
GCGCGCSCGCG
```

Original motif Consensus sequence: CCGCGGRCACG

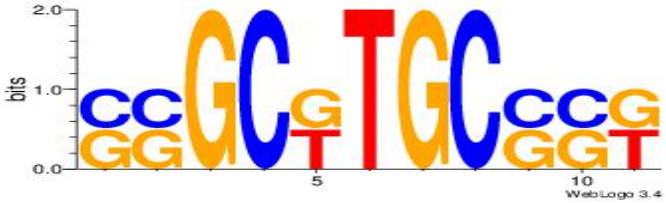
Reverse complement motif Consensus sequence: CGTGKCCGCGG

Dataset #:	4
Motif ID:	78
Motif name:	ssGCkTGCssk
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0299395

Alignment:

```
SSGCKTGCSSK
GCGCGCSCGCG
```

Original motif Consensus sequence: SSGCKTGCSSK



Reverse complement motif Consensus sequence: YSSGCAYGCSS

Dataset #:	4
Motif ID:	68
Motif name:	sscCCCGCGcs
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	11

Similarity score: 0.0338798

Alignment:
SBCGCGGGGSB
CGCGSGCGCGC

Original motif Consensus sequence: BSCCCCGCGBS

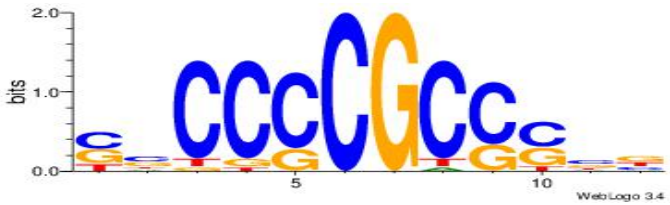
Reverse complement motif Consensus sequence: SBCGCGGGGSB

Dataset #: 4
Motif ID: 74
Motif name: ssCCCCGCSssk
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 2
Number of overlap: 11
Similarity score: 0.0410595

Alignment:
BBSGGCGGGGBS
-CGCGSGCGCGC

Original motif Consensus sequence: SBCCCCGCCSBB

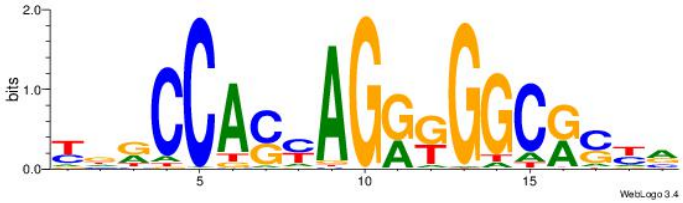
Reverse complement motif Consensus sequence: BBSGGCGGGGBS



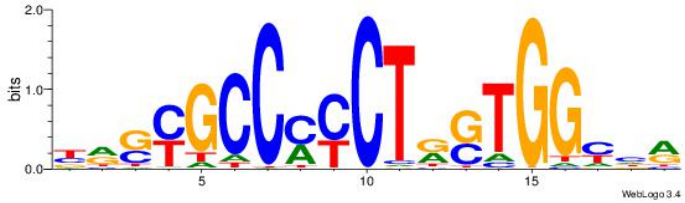
Dataset #:	3
Motif ID:	66
Motif name:	CTCF
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	7
Number of overlap:	11
Similarity score:	0.0537298

Alignment:
BMSMGCCYMCTKSTGGMHM
------GCGCGCSCGCG--

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



Reverse complement motif Consensus sequence:
BMSMGCCYMCTKSTGGMHM



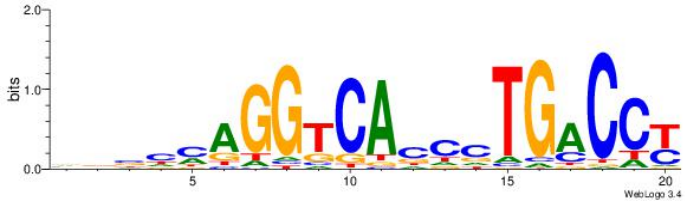
Dataset #: 3

Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	7
Number of overlap:	11
Similarity score:	0.0651602

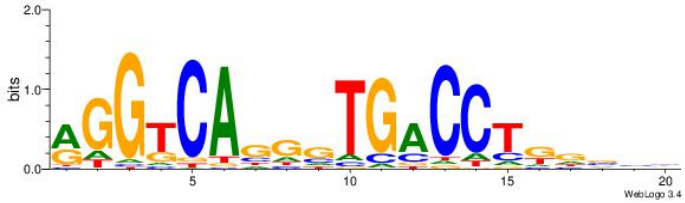
Alignment:

```
MGGTCAGGGTGACCTRDBHV
---GCGCGCSCGCG------
```

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

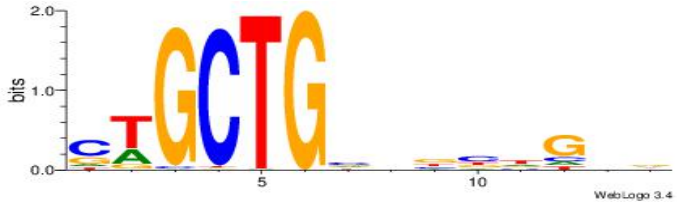


Dataset #:	5
Motif ID:	88
Motif name:	TFF11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11

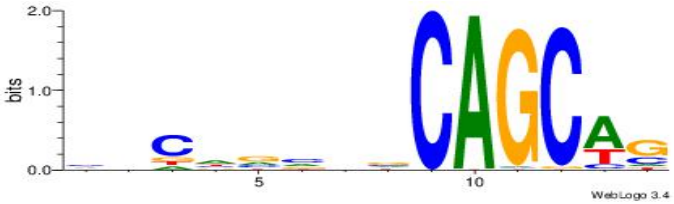
Similarity score: 0.0669956

Alignment:
HVCDBBDBCAGCAG
---CGCGSGCGCGC

Original motif Consensus sequence: CTGCTGBDBBDGBD



Reverse complement motif Consensus sequence: HVCDBBDBCAGCA

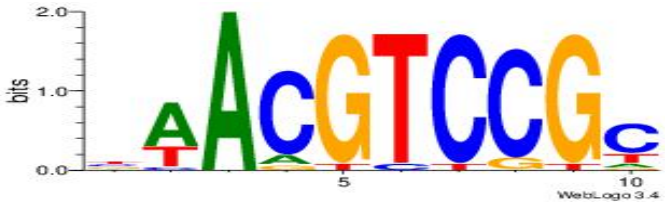


Dataset #: 3
Motif ID: 63
Motif name: MIZF
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 1
Number of overlap: 10
Similarity score: 0.55601

Alignment:
BAACGTCCGC-
GCGCGCSCGCG

Original motif Consensus sequence: BAACGTCCGC

Reverse complement motif Consensus sequence: GCGGACGTTV

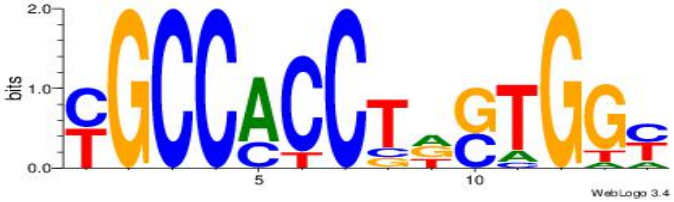


Dataset #:	2
Motif ID:	47
Motif name:	Motif 47
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	5
Number of overlap:	10
Similarity score:	0.557768

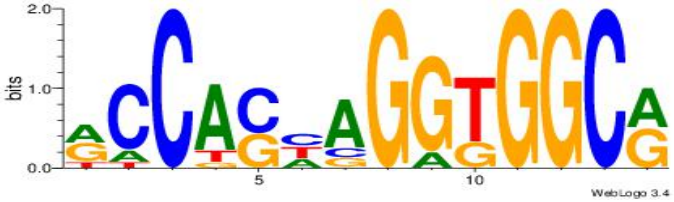
Alignment:

```
-YGCCACCTDSTGGY
GCGCGCSCGCG----
```

Original motif Consensus sequence: YGCCACCTDSTGGY



Reverse complement motif Consensus sequence: KCCASDAGGTGGC



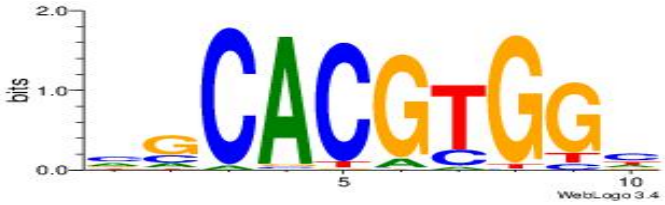
Dataset #:	3
Motif ID:	58

Motif name:	Myc
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	10
Similarity score:	0.561823

Alignment:

```
DCCACGTGCV-
GCGCGCSCGCG
```

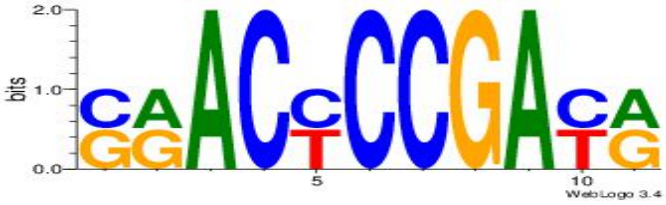
Original motif Consensus sequence: VGCACGTGGH



Reverse complement motif Consensus sequence: DCCACGTGCV

Dataset #: 4 Motif ID: 83 Motif name: srACyCCGAyr

Original motif Consensus sequence: SRACYCCGAYR



Reverse complement motif Consensus sequence: KKTCGGKGTKS

Best Matches for Motif ID 83 (Highest to Lowest)

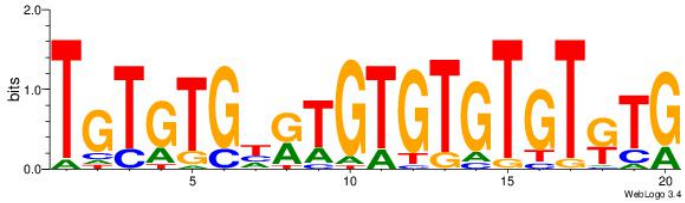
Dataset #:	5
Motif ID:	92
Motif name:	TFM11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	8
Number of overlap:	11
Similarity score:	0.0337509

Alignment:

```
TGTGTGDKTGTGTGTGTRTG
--KKTCGGKGTKS-------
```

Original motif Consensus sequence: CAMACACACACAYDCACACA

Reverse complement motif Consensus sequence: TGTGTGDKTGTGTGTGTRTG

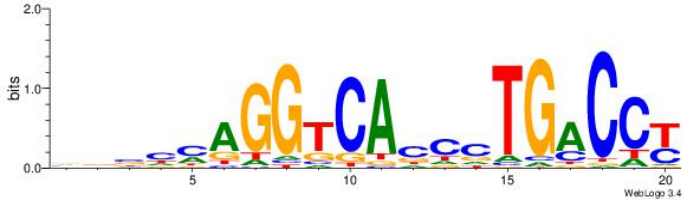


Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2

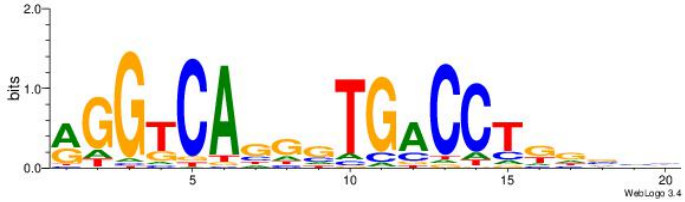
Number of overlap: 11
Similarity score: 0.0342809

Alignment:
MGGTCAGGGTGACCTRDBHV
-KKTCGGKGTKS--------

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



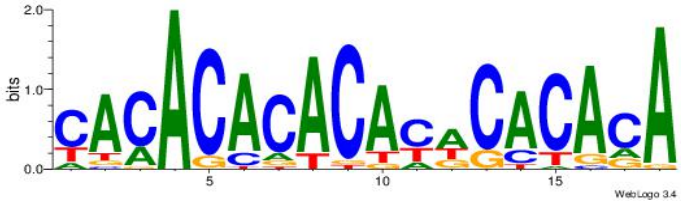
Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV



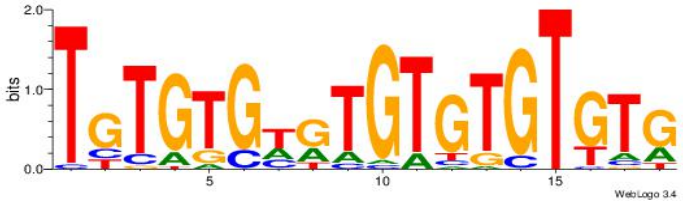
Dataset #: 5
Motif ID: 89
Motif name: TFM1
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 7
Number of overlap: 11
Similarity score: 0.0348124

Alignment:
TGTGTGWGTGTGTGTGTG
------KKTCGGKGTKS-

Original motif Consensus sequence: CACACACACACWCACACA



Reverse complement motif Consensus sequence: TGTGTGWGTGTGTGTGTG

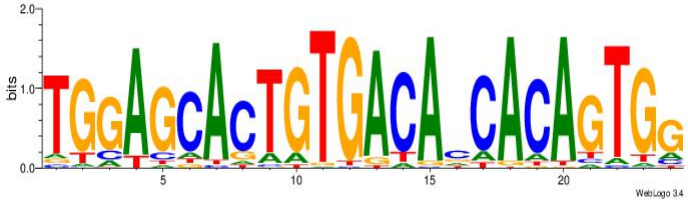


Dataset #:	4
Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	5
Number of overlap:	11
Similarity score:	0.0372475

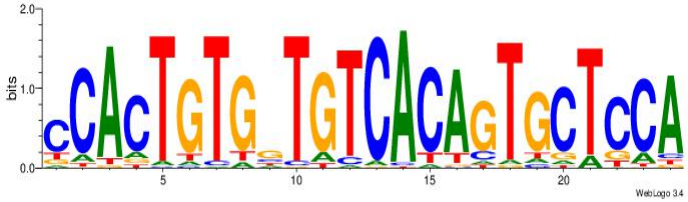
Alignment:

```
CCACTGTGVTGTCACAGTGCTCCA
---------KKTCGGKGTKS----
```

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

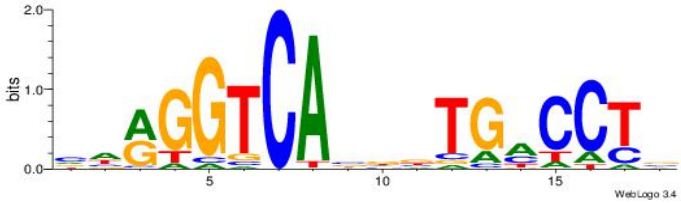


Dataset #:	3
Motif ID:	59
Motif name:	ESR2
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	11
Similarity score:	0.0379796

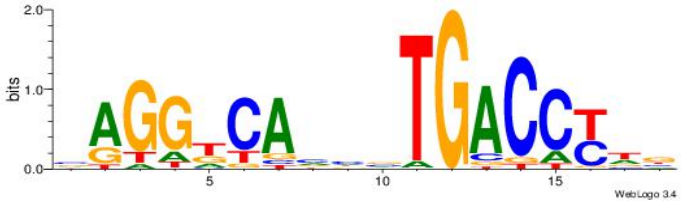
Alignment:

```
BAGGYCABHBTGACCKHV
---SRACYCCGAYR----
```

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB



Reverse complement motif Consensus sequence: BAGGYCABHBTGACCKHV

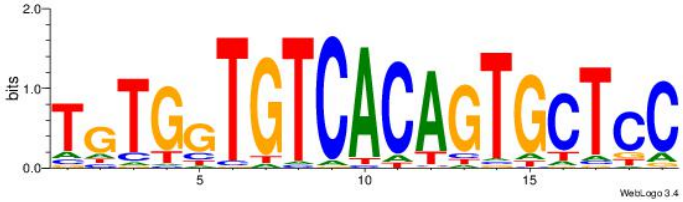


Dataset #:	4
Motif ID:	67
Motif name:	TgTGgTGTCACAGTGCTCC
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	6

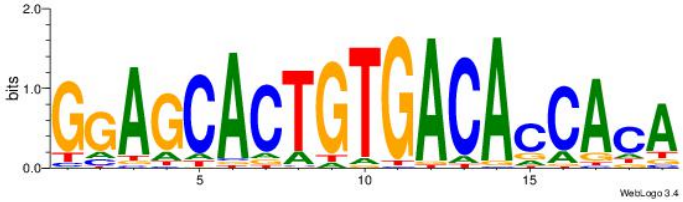
Number of overlap: 11
Similarity score: 0.0381944

Alignment:
GGAGCACTGTGACACCACA
-----SRACYCCGAYR---

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA

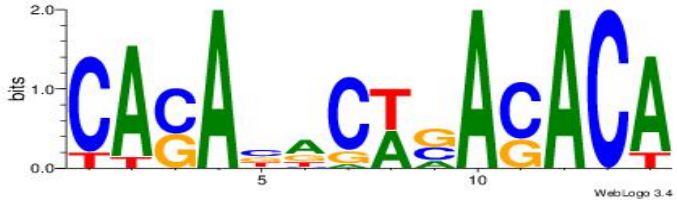


Dataset #: 1
Motif ID: 6
Motif name: Motif 6
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 2
Number of overlap: 11
Similarity score: 0.039412

Alignment:
TGTGTSWGTBTSTG
--KKTCGGKGTKS-

Original motif Consensus sequence: CASABACWSACACA

Reverse complement motif Consensus sequence: TGTGTSWGTBTST

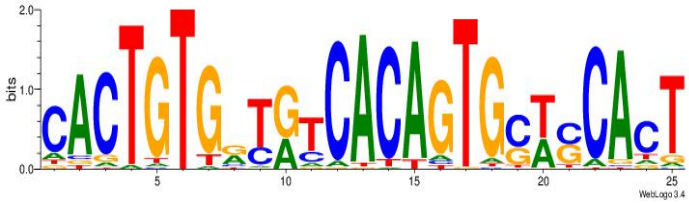


Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	7
Number of overlap:	11
Similarity score:	0.0397727

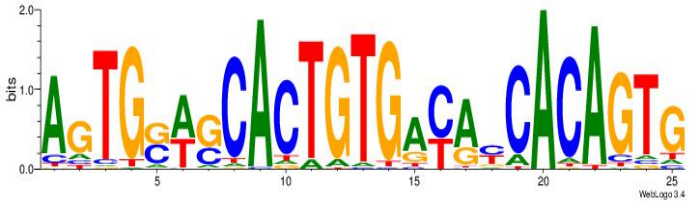
Alignment:

```
AGTGSWSCACTGTGAMAMCACAGTG
--------SRACYCCGAYR------
```

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG



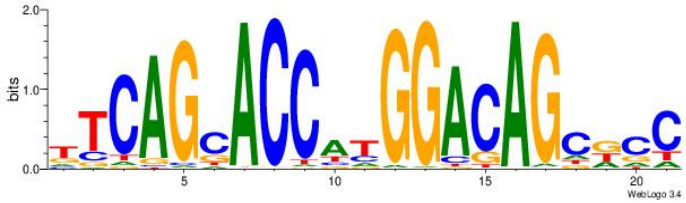
Dataset #:	3

Motif ID:	57
Motif name:	REST
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	5
Number of overlap:	11
Similarity score:	0.0402801

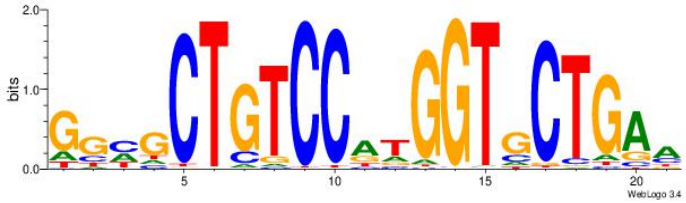
Alignment:

```
GGYGCTGTCCATGGTGCTGAA
------KKTCGGKGTKS----
```

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA



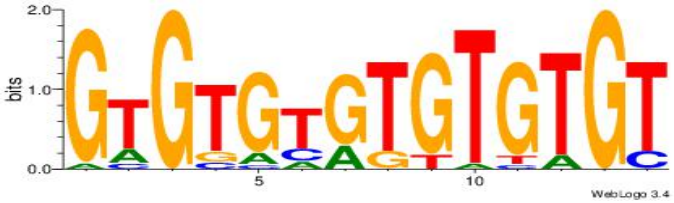
Dataset #:	1
Motif ID:	2
Motif name:	Motif 2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	11

Similarity score: 0.0438762

Alignment:
GTGTGTGTGTGTGT
-KKTCGGKGTKS--

Original motif Consensus sequence: ACACACACACACAC

Reverse complement motif Consensus sequence: GTGTGTGTGTGTG



Dataset #: 5 Motif ID: 84 Motif name: TFW3

Original motif Consensus sequence: GCACTG

Reverse complement motif Consensus sequence: CAGTGC

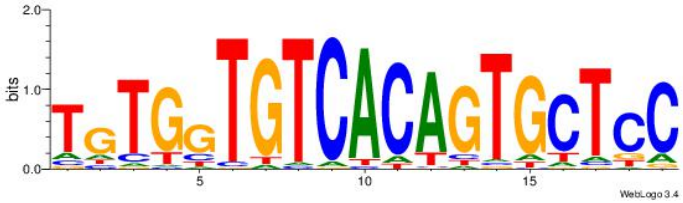
Best Matches for Motif ID 84 (Highest to Lowest)

Dataset #:	4
Motif ID:	67
Motif name:	TgTGgTGTCACAGTGCTCC
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward

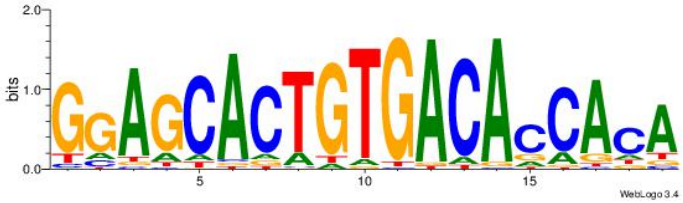
Position number: 11
Number of overlap: 6
Similarity score: 0

Alignment:
GGAGCACTGTGACACCACA
----------GCACTG---

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



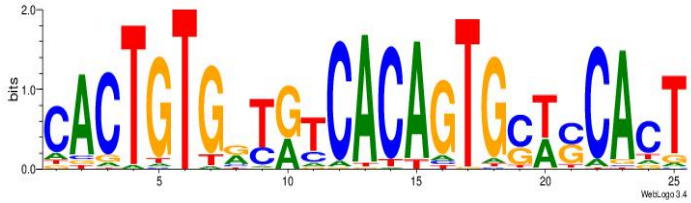
Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA



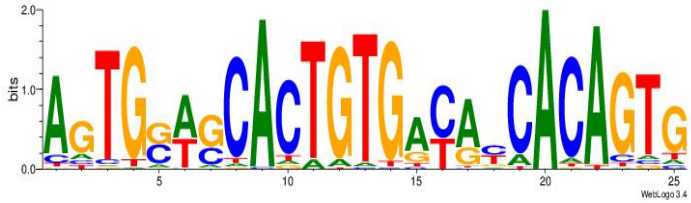
Dataset #: 4
Motif ID: 72
Motif name: CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 7
Number of overlap: 6
Similarity score: 0.000794289

Alignment:
AGTGSWSCACTGTGAMAMCACAGTG
----------GCACTG------

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG

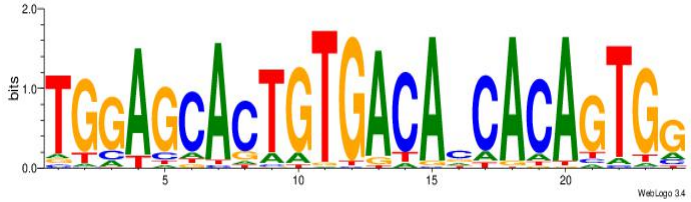


Dataset #:	4
Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	5
Number of overlap:	6
Similarity score:	0.00482436

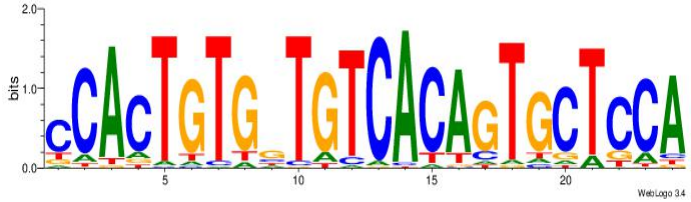
Alignment:

```
CCACTGTGVTGTCACAGTGCTCCA
--------------CAGTGC----
```

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence:
CCACTGTGVTGTCACAGTGCTCCA

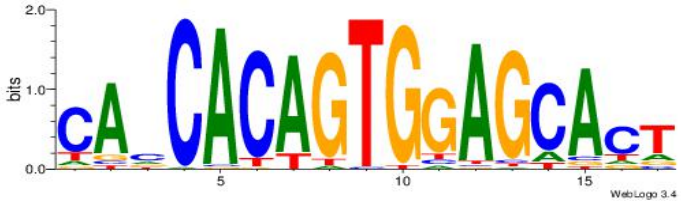


Dataset #:	4
Motif ID:	76
Motif name:	CAcCACAGTGGAGCAct
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	7
Number of overlap:	6
Similarity score:	0.0201914

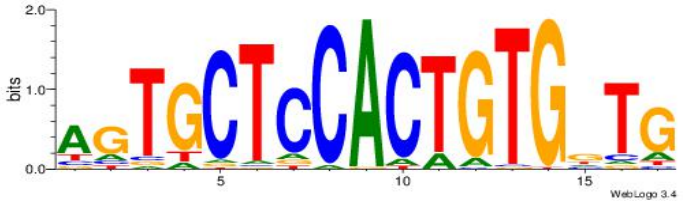
Alignment:

```
CAHCACAGTGGAGCACT
------CAGTGC-----
```

Original motif Consensus sequence: CAHCACAGTGGAGCACT



Reverse complement motif Consensus sequence: AGTGCTCCACTGTGDTG

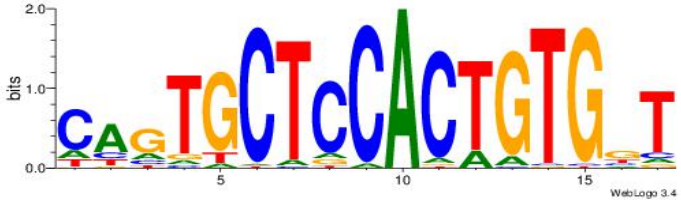


Dataset #:	4
Motif ID:	70
Motif name:	CagTGCTCCACTGTGgT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	8

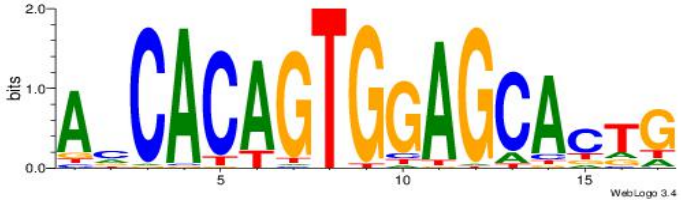
Number of overlap: 6
Similarity score: 0.0205497

Alignment:
ABCACAGTGGAGCACTG
----CAGTGC-------

Original motif Consensus sequence: CAGTGCTCCACTGTGBT



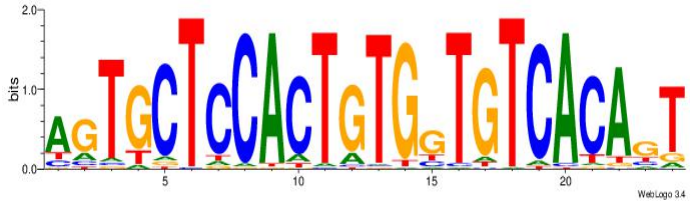
Reverse complement motif Consensus sequence: ABCACAGTGGAGCACTG



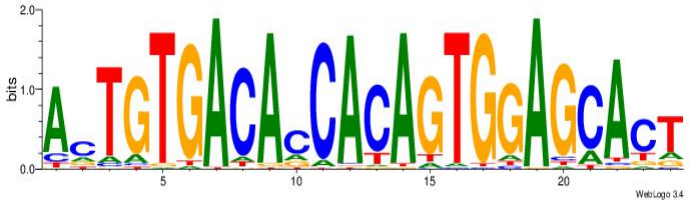
Dataset #: 4
Motif ID: 77
Motif name: AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 13
Number of overlap: 6
Similarity score: 0.0290883

Alignment:
AGTGCTCCACTGTGGTGTCACAGT
------GCACTG------------

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT

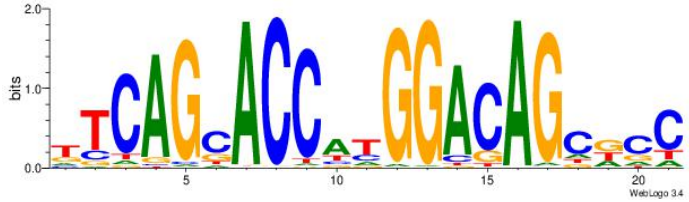


Dataset #:	3
Motif ID:	57
Motif name:	REST
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	15
Number of overlap:	6
Similarity score:	0.039883

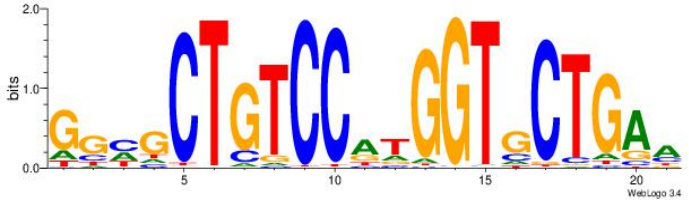
Alignment:

```
TTCAGCACCATGGACAGCKCC
-CAGTGC--------------
```

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA

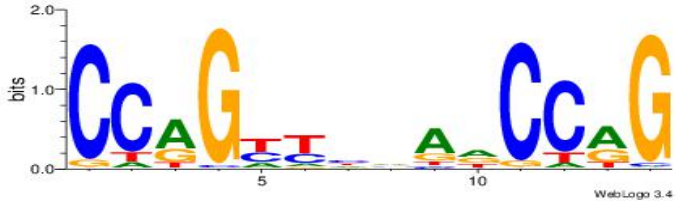


Dataset #:	3
Motif ID:	65
Motif name:	Tcfcp2l1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	8
Number of overlap:	6
Similarity score:	0.0447224

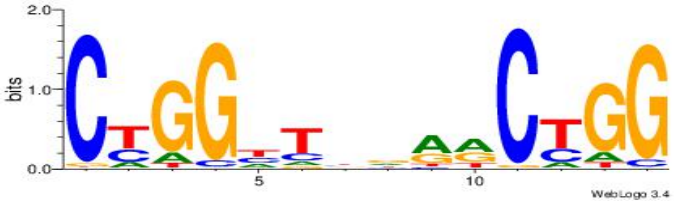
Alignment:

```
CCAGYYHVADCCRG
-------CAGTGC-
```

Original motif Consensus sequence: CCAGYYHVADCCRG



Reverse complement motif Consensus sequence: CKGGDTBDMMCT

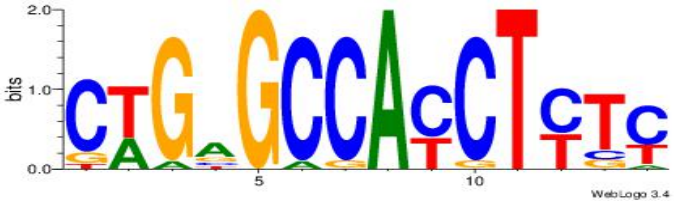


Dataset #:	1
Motif ID:	5
Motif name:	Motif 5
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	9
Number of overlap:	6

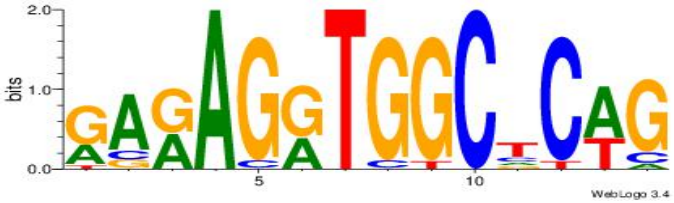
Similarity score: 0.0459818

Alignment:
GAKAGKTGGCTCWG
GCACTG--------

Original motif Consensus sequence: CWGAGCCAYCTYTC



Reverse complement motif Consensus sequence: GAKAGKTGGCTCW

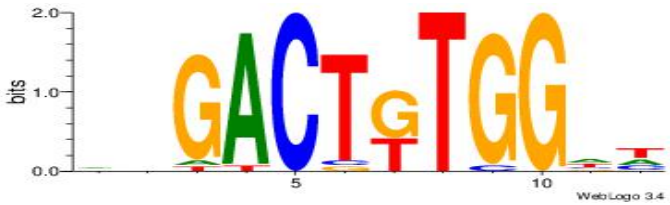


Dataset #: 4
Motif ID: 75
Motif name: wwCCAmAGTCmt
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 6
Number of overlap: 6
Similarity score: 0.0587933

Alignment:
VDGACTRTGGDD
-----GCACTG-

Original motif Consensus sequence: DDCCAMAGTCHB

Reverse complement motif Consensus sequence: VDGACTRTGGDD



Dataset #: 5 Motif ID: 85 Motif name: TFW1

Original motif Consensus sequence: TTGCGCAA

Reverse complement motif Consensus sequence: TTGCGCAA

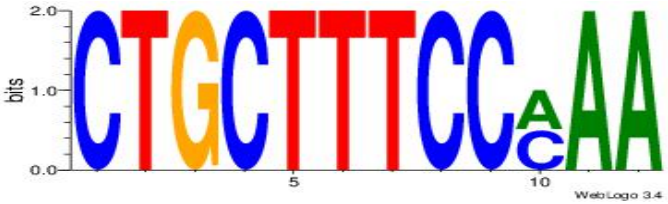
Best Matches for Motif ID 85 (Highest to Lowest)

Dataset #:	1
Motif ID:	21
Motif name:	Motif 21
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	8
Similarity score:	0.0195312

Alignment:

```
TTYGGAAAGCAG
----TTGCGCAA
```

Original motif Consensus sequence: CTGCTTTCCMAA



Reverse complement motif Consensus sequence: TTYGGAAAGCAG

Dataset #:	3
Motif ID:	52
Motif name:	NR2F1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	8
Similarity score:	0.0276442

Alignment:

```
AKGYYCAAAGRTCA
TTGCGCAA------
```

Original motif Consensus sequence: TGAMCTTTGMMCYT

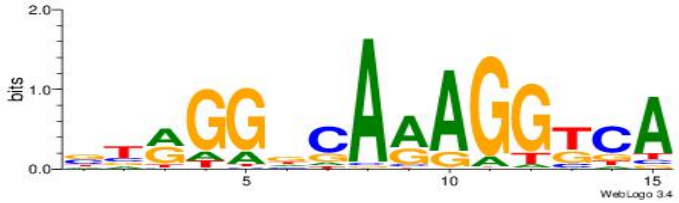
Reverse complement motif Consensus sequence: AKGYYCAAAGRTCA

Dataset #:	3
Motif ID:	64
Motif name:	PPARGRXRA
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	7
Number of overlap:	8
Similarity score:	0.0277567

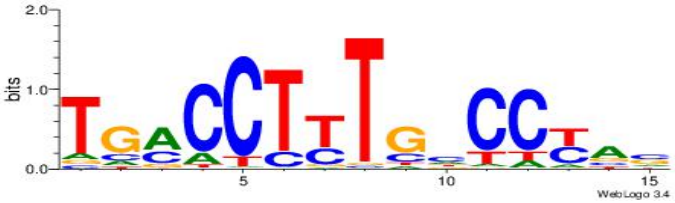
Alignment:

```
BTRGGDCARAGGKCA
------TTGCGCAA-
```

Original motif Consensus sequence: BTRGGDCARAGGKCA



Reverse complement motif Consensus sequence: TGRCCTKTGHCCK



Dataset #:	1
Motif ID:	28
Motif name:	Motif 28
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	8

Similarity score: 0.0328125

Alignment:
TTTACTAAAT
-TTGCGCAA-

Original motif Consensus sequence: ATTTAGTAAA

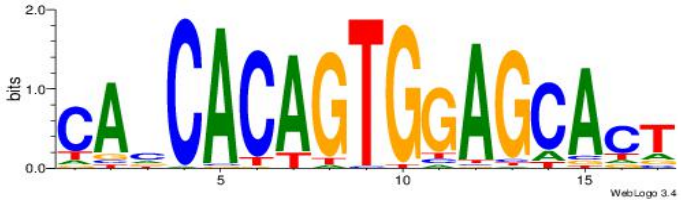
Reverse complement motif Consensus sequence: TTTACTAAAT

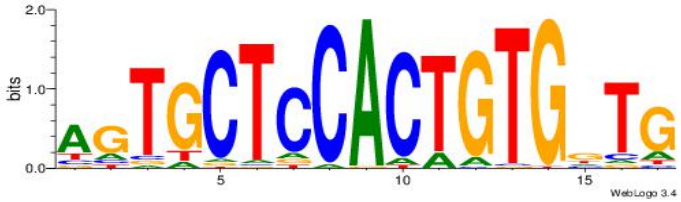
Dataset #: 4
Motif ID: 76
Motif name: CAcCACAGTGGAGCAct
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 2
Number of overlap: 8
Similarity score: 0.0336914

Alignment:
CAHCACAGTGGAGCACT
-TTGCGCAA--------

Original motif Consensus sequence: CAHCACAGTGGAGCACT

Reverse complement motif Consensus sequence: AGTGCTCCACTGTGDTG

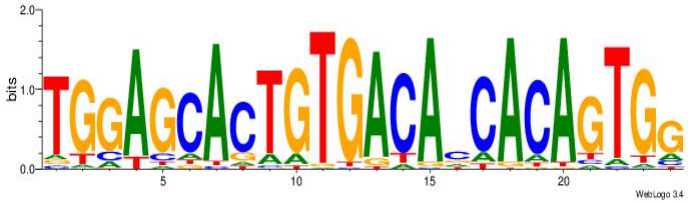




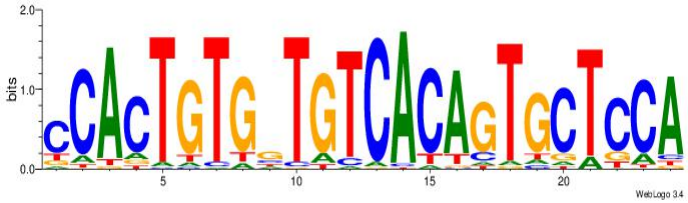
Dataset #: 4
Motif ID: 73
Motif name: TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 17
Number of overlap: 8
Similarity score: 0.0338471

Alignment:
TGGAGCACTGTGACAVCACAGTGG
TTGCGCAA----------

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA



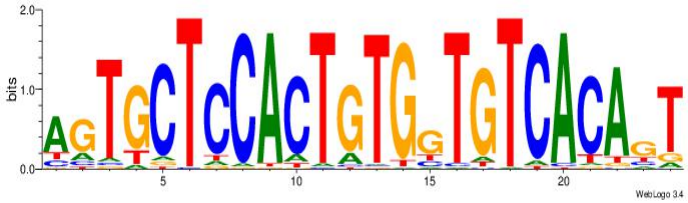
Dataset #: 4

Motif ID:	77
Motif name:	AgTGCTCCACTGTGgTGTCACAgT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	16
Number of overlap:	8
Similarity score:	0.034375

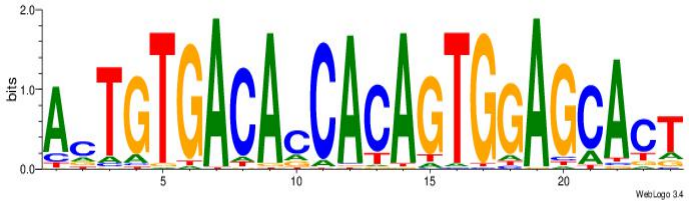
Alignment:

```
AGTGCTCCACTGTGGTGTCACAGT
---------------TTGCGCAA-
```

Original motif Consensus sequence: AGTGCTCCACTGTGGTGTCACAGT



Reverse complement motif Consensus sequence: ACTGTGACACCACAGTGGAGCACT

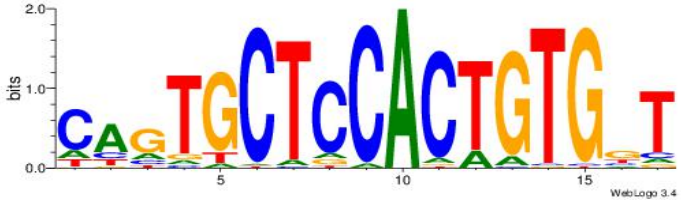


Dataset #:	4
Motif ID:	70
Motif name:	CagTGCTCCACTGTGgT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	8

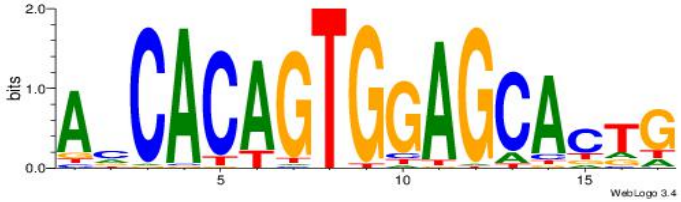
Similarity score: 0.0354167

Alignment:
CAGTGCTCCACTGTGBT
-------TTGCGCAA--

Original motif Consensus sequence: CAGTGCTCCACTGTGBT



Reverse complement motif Consensus sequence: ABCACAGTGGAGCACTG

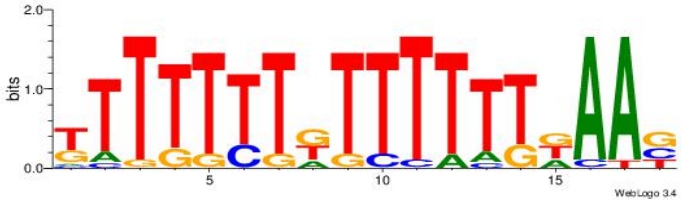


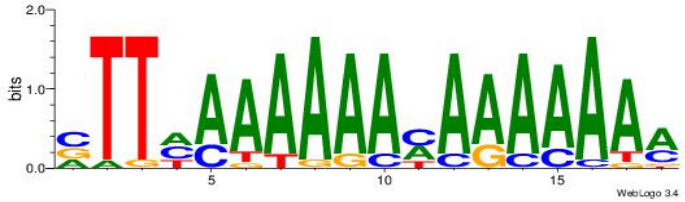
Dataset #: 5
Motif ID: 91
Motif name: TFM3
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Backward
Position number: 2
Number of overlap: 8
Similarity score: 0.0359375

Alignment:
KTTTTTTKTTTTTTDAAB
---------TTGCGCAA-

Original motif Consensus sequence: KTTTTTTKTTTTTTDAAB

Reverse complement motif Consensus sequence: BTTHAAAAAAYAAAAAAR



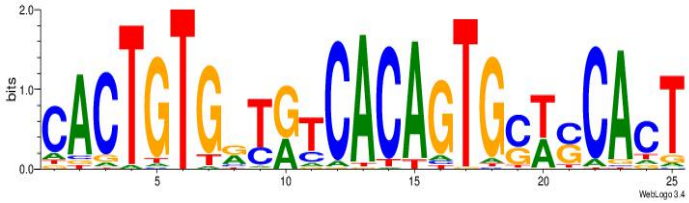


Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	8
Similarity score:	0.0407242

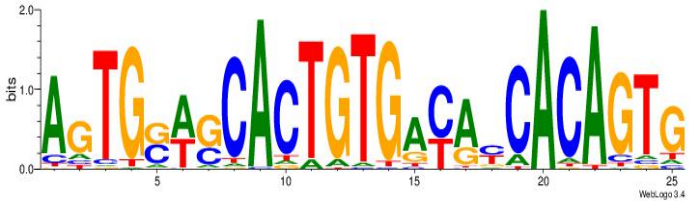
Alignment:

```
CACTGTGRTRTCACAGTGSWSCACT
---------------TTGCGCAA--
```

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG



Dataset #: 5 Motif ID: 86 Motif name: TFW2

Original motif Consensus sequence: YGGACTTACG

Reverse complement motif Consensus sequence: CGTAAGTCCK

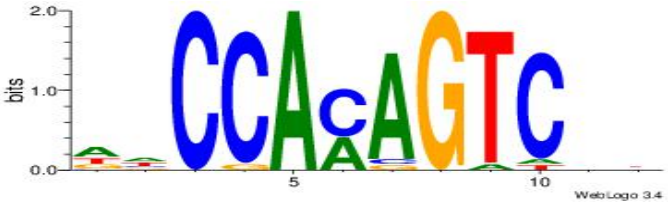
Best Matches for Motif ID 86 (Highest to Lowest)

Dataset #:	4
Motif ID:	75
Motif name:	wwCCAmAGTCmt
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	10
Similarity score:	0.0441919

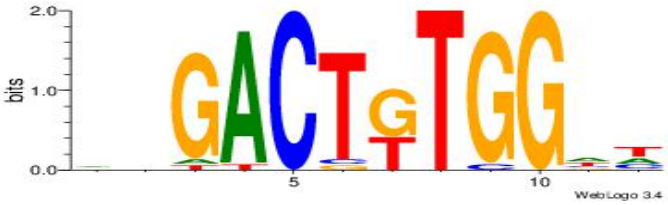
Alignment:

```
VDGACTRTGGDD
--YGGACTTACG
```

Original motif Consensus sequence: DDCCAMAGTCHB



Reverse complement motif Consensus sequence: VDGACTRTGGDD

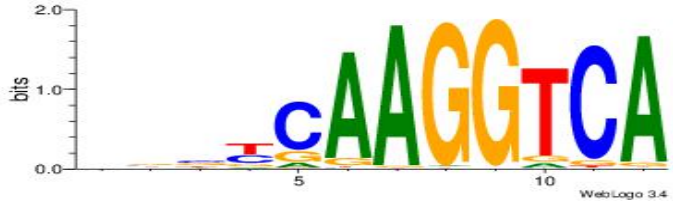


Dataset #:	3
Motif ID:	54
Motif name:	Esrrb
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	10
Similarity score:	0.0583503

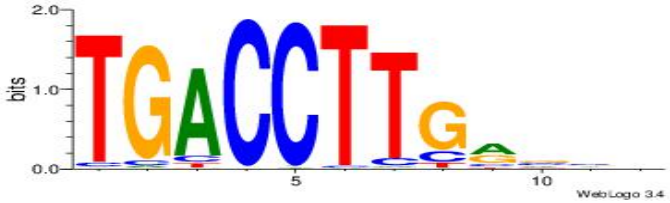
Alignment:

```
VBBYCAAGGTCA
CGTAAGTCCK--
```

Original motif Consensus sequence: VBBYCAAGGTCA



Reverse complement motif Consensus sequence: TGACCTTGMBBB

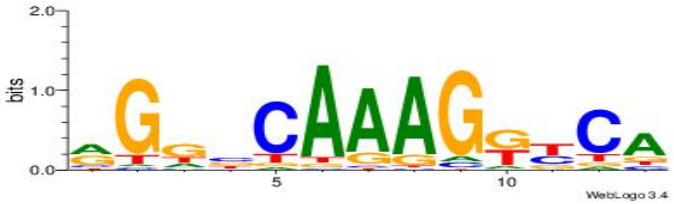


Dataset #:	3
Motif ID:	51
Motif name:	HNF4A
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	10

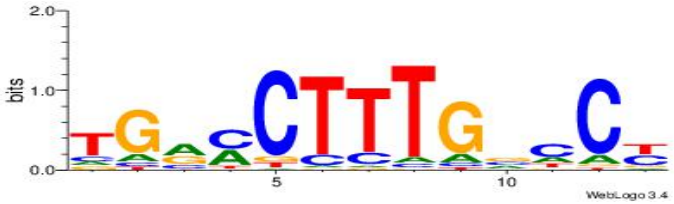
Similarity score: 0.063039

Alignment:
TGMYCTTTGBCCK
---YGGACTTACG

Original motif Consensus sequence: RGGBCAAAGKYCA



Reverse complement motif Consensus sequence: TGMYCTTTGBCCK

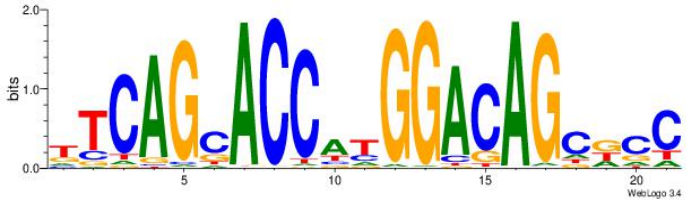


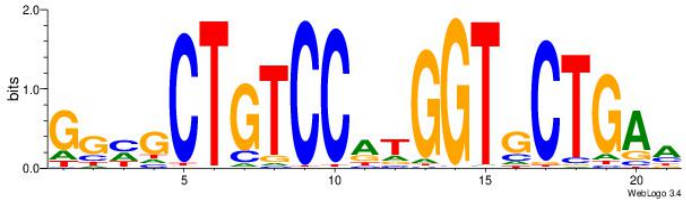
Dataset #: 3
Motif ID: 57
Motif name: REST
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 2
Number of overlap: 10
Similarity score: 0.0662938

Alignment:
TTCAGCACCATGGACAGCKCC
----------YGGACTTACG-

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC

Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA





Dataset #:	3
Motif ID:	52
Motif name:	NR2F1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	10
Similarity score:	0.0672009

Alignment:

```
TGAMCTTTGMMCYT
YGGACTTACG----
```

Original motif Consensus sequence: TGAMCTTTGMMCYT

Reverse complement motif Consensus sequence: AKGYYCAAAGRTCA

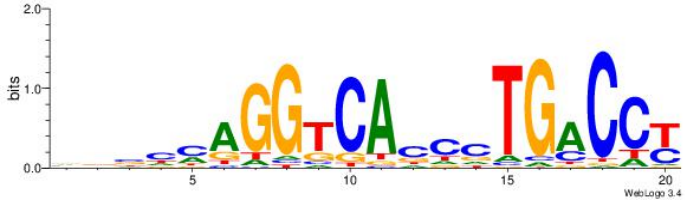
Dataset #:	3
Motif ID:	53

Motif name:	ESR1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	10
Similarity score:	0.0684067

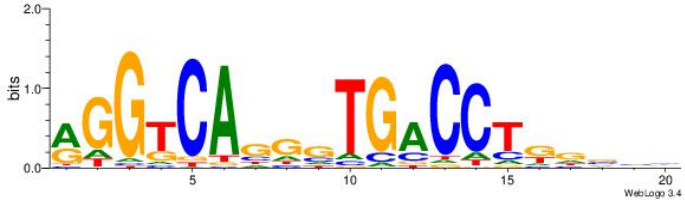
Alignment:

```
VDBHMAGGTCACCCTGACCY
--------CGTAAGTCCK--
```

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



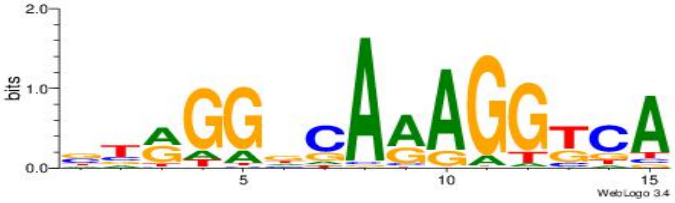
Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV



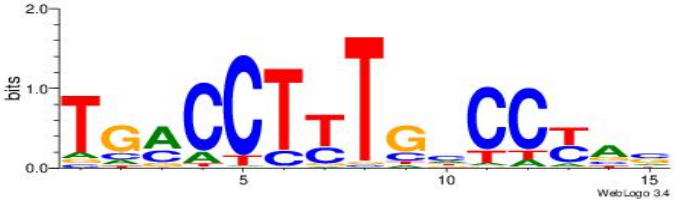
Dataset #:	3
Motif ID:	64
Motif name:	PPARGRXRA
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	10
Similarity score:	0.0692256

Alignment:
TGRCCTKTGHCCKAB
---CGTAAGTCCK--

Original motif Consensus sequence: BTRGGDCARAGGKCA



Reverse complement motif Consensus sequence: TGRCCTKTGHCCK



Dataset #:	1
Motif ID:	8
Motif name:	Motif 8
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	10
Similarity score:	0.0694444

Alignment:
AAGSATTTTCA
YGGACTTACG-

Original motif Consensus sequence: TGAAAATSCTT

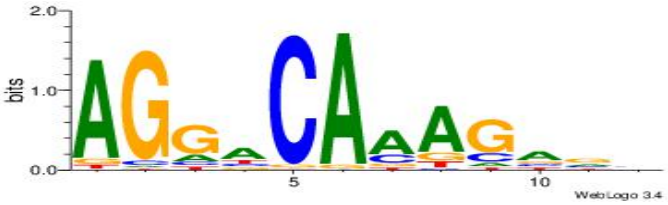
Reverse complement motif Consensus sequence: AAGSATTTTCA

Dataset #:	5
Motif ID:	87
Motif name:	TFF1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	10
Similarity score:	0.0707746

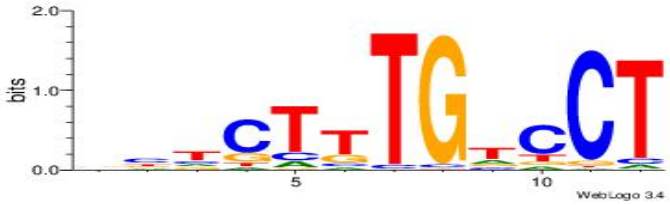
Alignment:

```
VVTCTTTGTCCT
--CGTAAGTCCK
```

Original motif Consensus sequence: AGGACAAAGAVV



Reverse complement motif Consensus sequence: VVTCTTTGTCCT



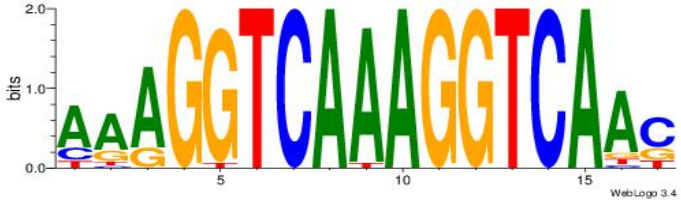
Dataset #:	3
Motif ID:	60

Motif name:	NR1H2RXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	7
Number of overlap:	10
Similarity score:	0.0713889

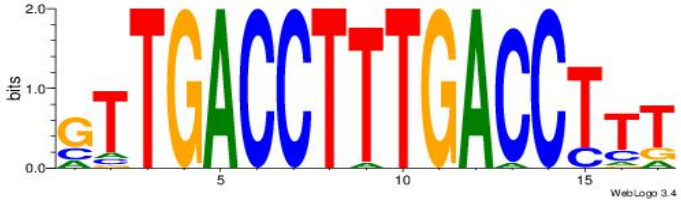
Alignment:

```
GTTGACCTTTGACCTTT
------YGGACTTACG-
```

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC

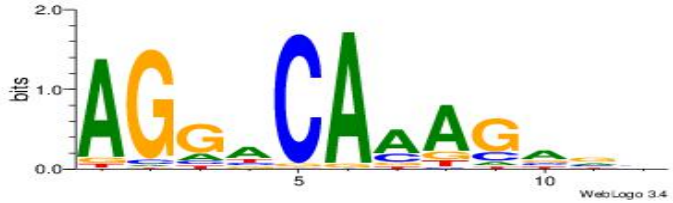


Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT

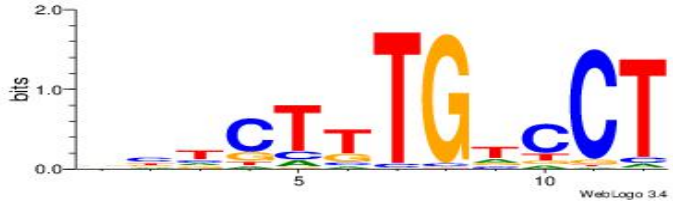


Dataset #: 5 Motif ID: 87 Motif name: TFF1

Original motif Consensus sequence: AGGACAAAGAVV



Reverse complement motif Consensus sequence: VVTCTTTGTCCT



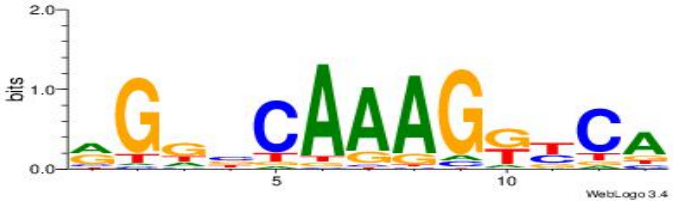
Best Matches for Motif ID 87 (Highest to Lowest)

Dataset #:	3
Motif ID:	51
Motif name:	HNF4A
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	12
Similarity score:	0.0111472

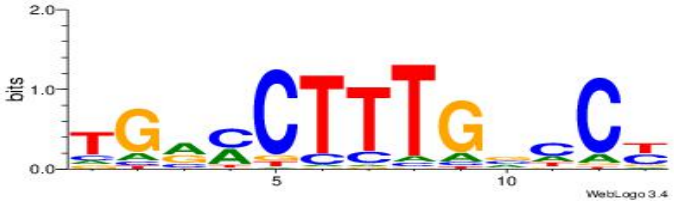
Alignment:

```
TGMYCTTTGBCCK
-VVTCTTTGTCCT
```

Original motif Consensus sequence: RGGBCAAAGKYCA



Reverse complement motif Consensus sequence: TGMYCTTTGBCCK



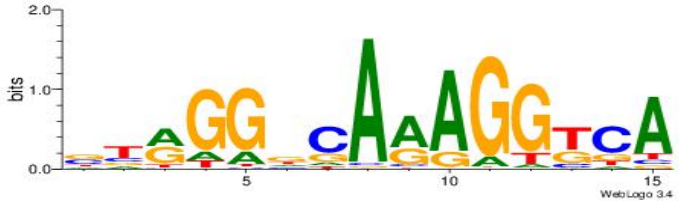
Dataset #:	3
Motif ID:	64
Motif name:	PPARGRXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif

Direction:	Forward
Position number:	3
Number of overlap:	12
Similarity score:	0.0210867

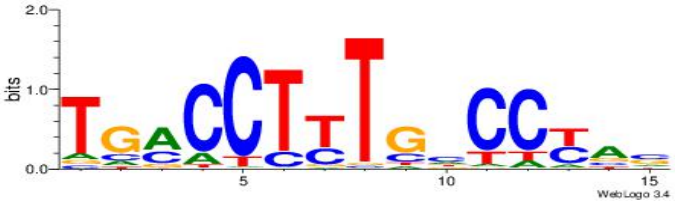
Alignment:

```
BTRGGDCARAGGKCA
--AGGACAAAGAVV-
```

Original motif Consensus sequence: BTRGGDCARAGGKCA



Reverse complement motif Consensus sequence: TGRCCTKTGHCCK

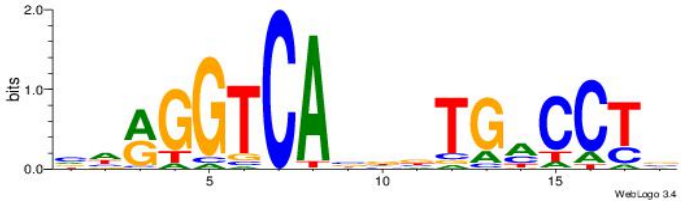


Dataset #:	3
Motif ID:	59
Motif name:	ESR2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	5
Number of overlap:	12
Similarity score:	0.0351633

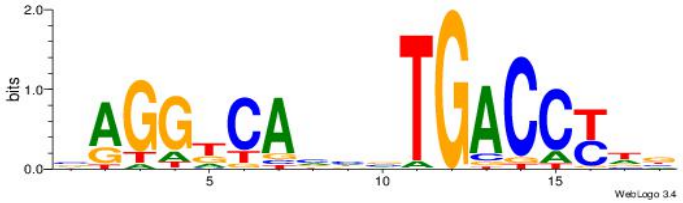
Alignment:

```
BAGGYCABHBTGACCKHV
----VVTCTTTGTCCT--
```

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB



Reverse complement motif Consensus sequence: BAGGYCABHBTGACCKHV

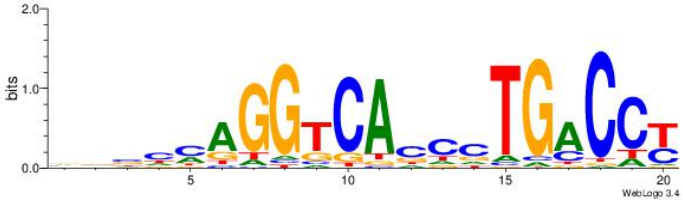


Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	9
Number of overlap:	12
Similarity score:	0.039773

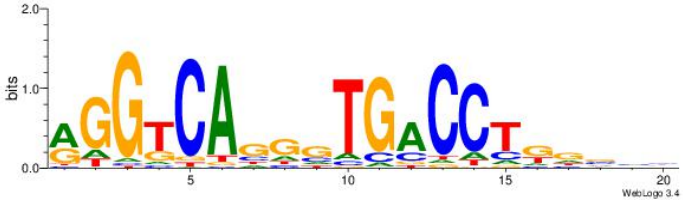
Alignment:

```
VDBHMAGGTCACCCTGACCY
VVTCTTTGTCCT--------
```

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

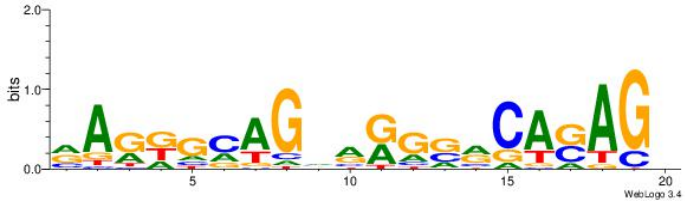


Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	8
Number of overlap:	12
Similarity score:	0.0408272

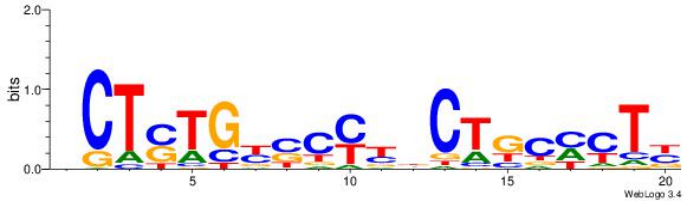
Alignment:

```
RAGKGMAGVRRGSRCASAGV
-AGGACAAAGAVV-------
```

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK



Dataset #:	3
Motif ID:	52
Motif name:	NR2F1
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2

Number of overlap: 12
Similarity score: 0.0472374

Alignment:
AKGYYCAAAGRTCA
-AGGACAAAGAVV-

Original motif Consensus sequence: TGAMCTTTGMMCYT

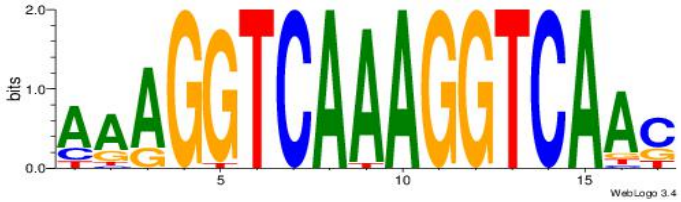
Reverse complement motif Consensus sequence: AKGYYCAAAGRTCA

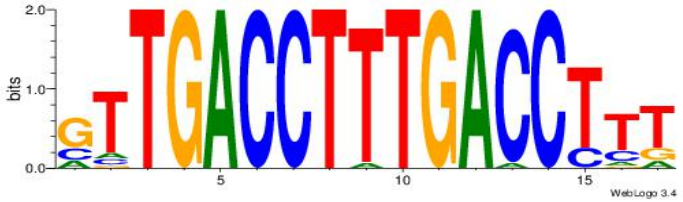
Dataset #: 3
Motif ID: 60
Motif name: NR1H2RXRA
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 4
Number of overlap: 12
Similarity score: 0.0472884

Alignment:
GTTGACCTTTGACCTTT
---VVTCTTTGTCCT--

Original motif Consensus sequence: AAAGGTCAAAGGTCAAC

Reverse complement motif Consensus sequence: GTTGACCTTTGACCTTT

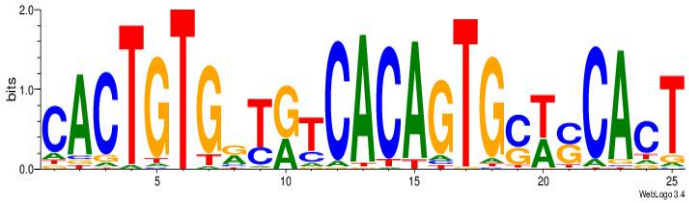




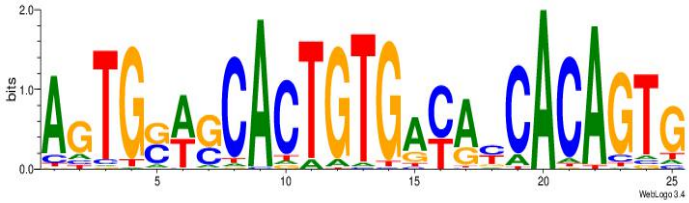
Dataset #: 4
Motif ID: 72
Motif name: CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 7
Number of overlap: 12
Similarity score: 0.0530556

Alignment:
CACTGTGRTRTCACAGTGSWSCACT
-------AGGACAAAGAVV------

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG



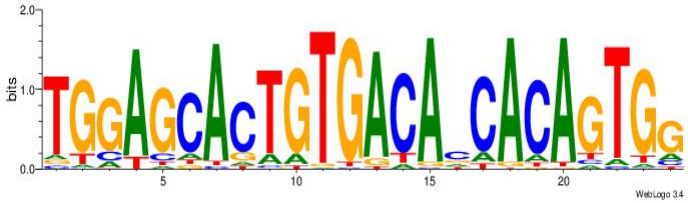
Dataset #: 4

Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	13
Number of overlap:	12
Similarity score:	0.0539204

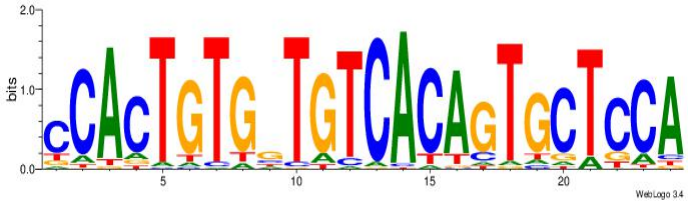
Alignment:

```
TGGAGCACTGTGACAVCACAGTGG
------------AGGACAAAGAVV
```

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

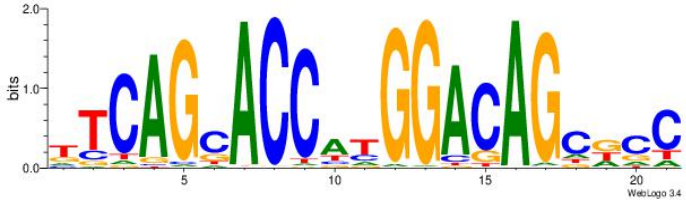


Dataset #:	3
Motif ID:	57
Motif name:	REST
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	4
Number of overlap:	12

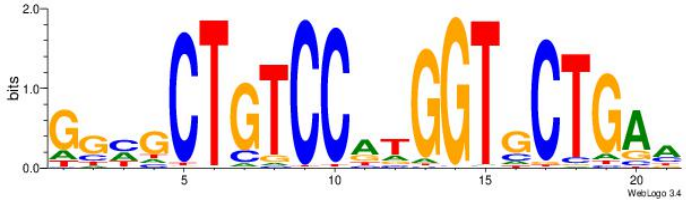
Similarity score: 0.0558379

Alignment:
TTCAGCACCATGGACAGCKCC
---AGGACAAAGAVV------

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC

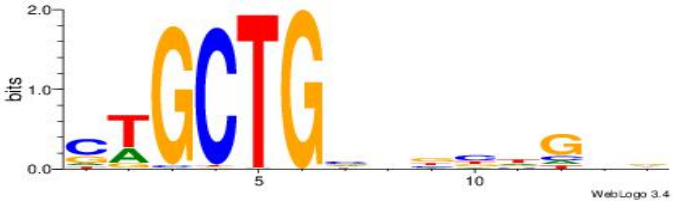


Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA

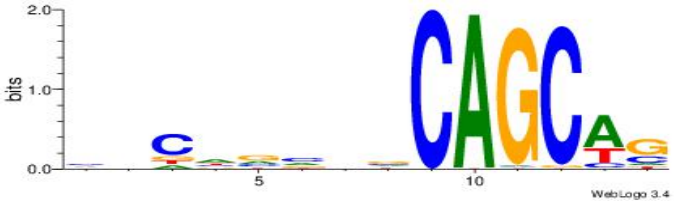


Dataset #: 5 Motif ID: 88 Motif name: TFF11

Original motif Consensus sequence: CTGCTGBDBBDGBD



Reverse complement motif Consensus sequence: HVCDBBDBCAGCA



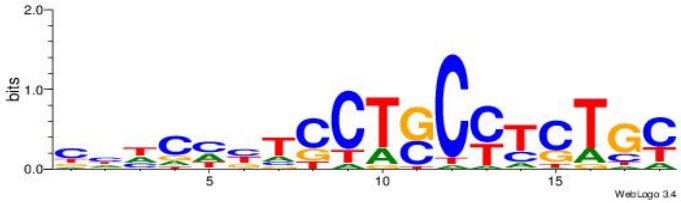
Best Matches for Motif ID 88 (Highest to Lowest)

Dataset #:	5
Motif ID:	90
Motif name:	TFM2
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement

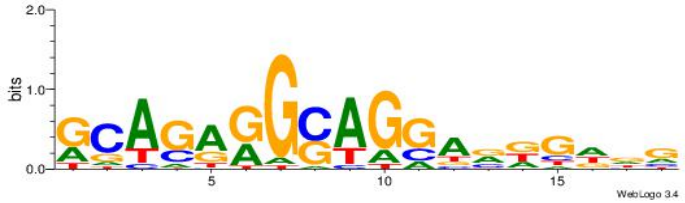
Direction:	Forward
Position number:	2
Number of overlap:	14
Similarity score:	0.03576

Alignment:
GCAGAKGSAGGABDGHDG
-CTGCTGBDBBDGBD---

Original motif Consensus sequence: CHHCHBTCCTSCYTCTGC



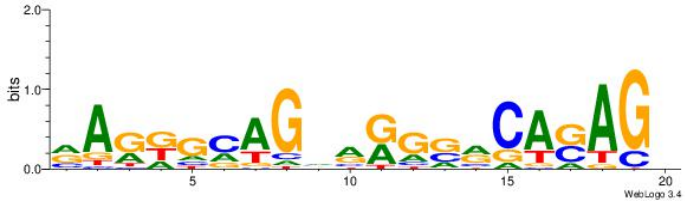
Reverse complement motif Consensus sequence:
GCAGAKGSAGGABDGHDG



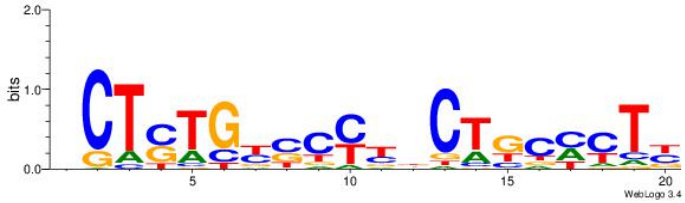
Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	4
Number of overlap:	14
Similarity score:	0.0381494

Alignment:
RAGKGMAGVRRGSRCASAGV
---HVCDBBDBCAGCAG---

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK

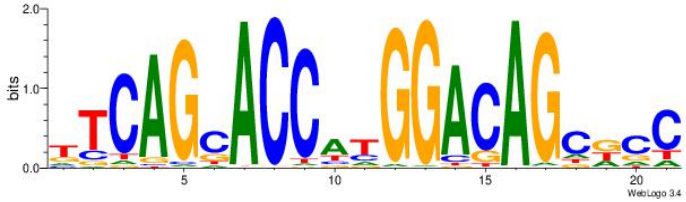


Dataset #:	3
Motif ID:	57
Motif name:	REST
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	7
Number of overlap:	14
Similarity score:	0.0491354

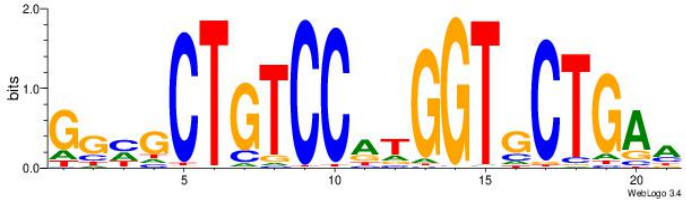
Alignment:

```
GGYGCTGTCCATGGTGCTGAA
------CTGCTGBDBBDGBD-
```

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA

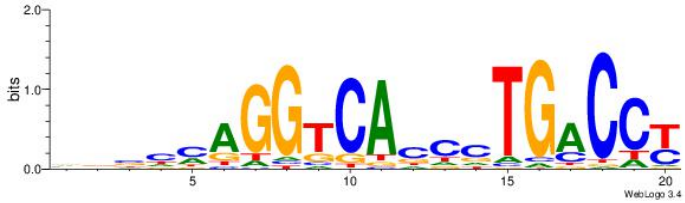


Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	14
Similarity score:	0.0521061

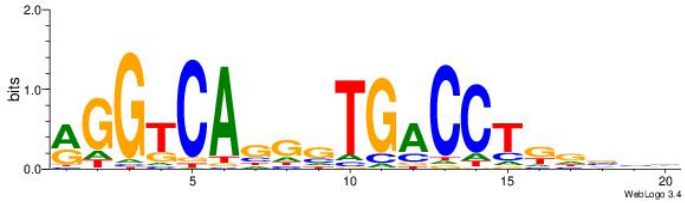
Alignment:

```
VDBHMAGGTCACCCTGACCY
-----HVCDBBDBCAGCAG-
```

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

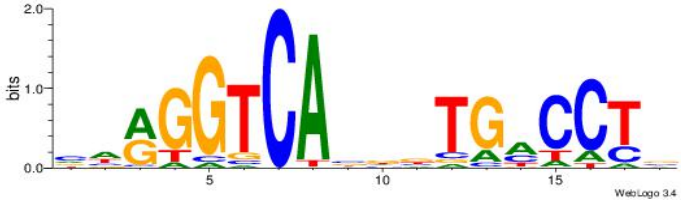


Dataset #:	3
Motif ID:	59
Motif name:	ESR2
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2

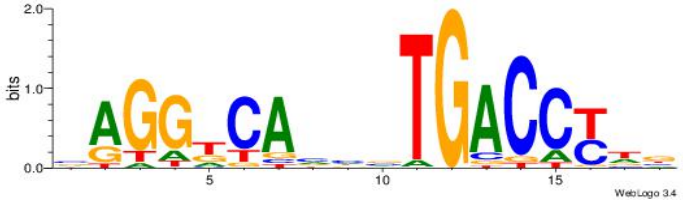
Number of overlap: 14
Similarity score: 0.0565525

Alignment:
VHRGGTCABDBTGMCCTB
-CTGCTGBDBBDGBD---

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB



Reverse complement motif Consensus sequence: BAGGYCABHBTGACCKHV

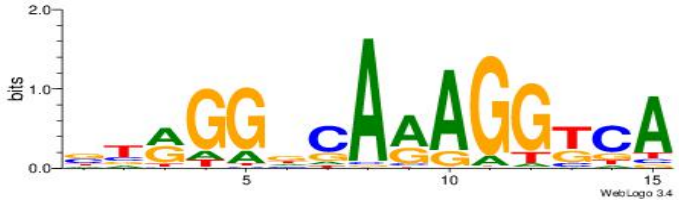


Dataset #: 3
Motif ID: 64
Motif name: PPARGRXRA
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 2
Number of overlap: 14
Similarity score: 0.0584136

Alignment:
BTRGGDCARAGGKCA
-HVCDBBDBCAGCAG

Original motif Consensus sequence: BTRGGDCARAGGKCA

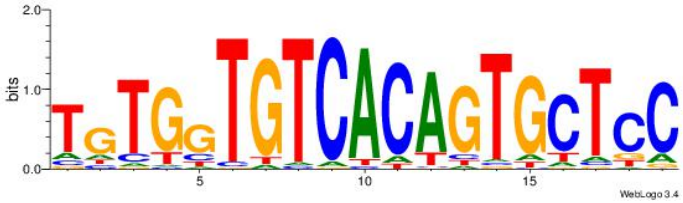
Reverse complement motif Consensus sequence: TGRCCTKTGHCCK



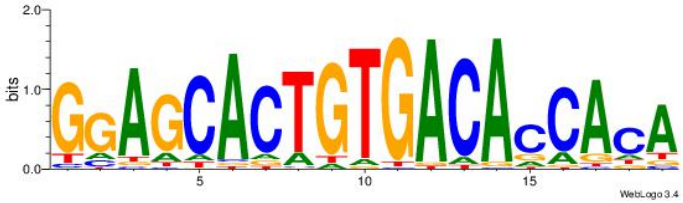
Dataset #: 4
Motif ID: 67
Motif name: TgTGgTGTCACAGTGCTCC
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 5
Number of overlap: 14
Similarity score: 0.0586124

Alignment:
GGAGCACTGTGACACCACA
----HVCDBBDBCAGCAG-

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA



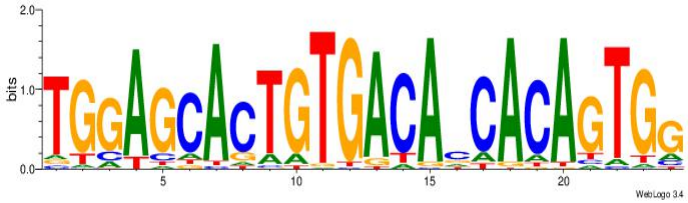
Dataset #: 4

Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	6
Number of overlap:	14
Similarity score:	0.060085

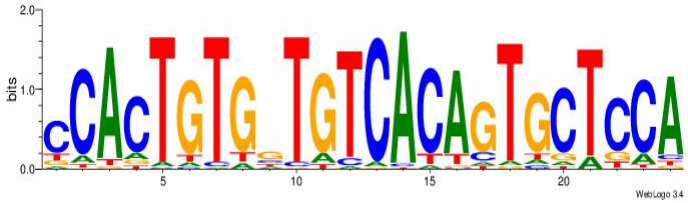
Alignment:

```
CCACTGTGVTGTCACAGTGCTCCA
-----CTGCTGBDBBDGBD-----
```

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

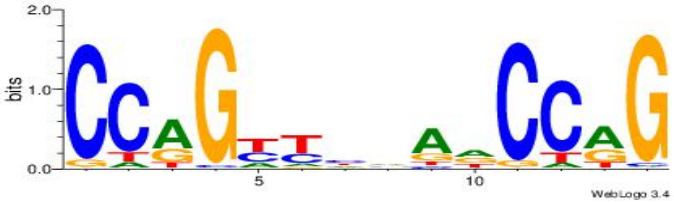


Dataset #:	3
Motif ID:	65
Motif name:	Tcfcp2l1
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	14

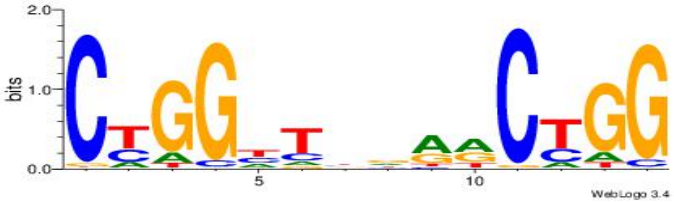
Similarity score: 0.0669051

Alignment:
CKGGDTBDMMCTGG
CTGCTGBDBBDGBD

Original motif Consensus sequence: CCAGYYHVADCCRG



Reverse complement motif Consensus sequence: CKGGDTBDMMCT

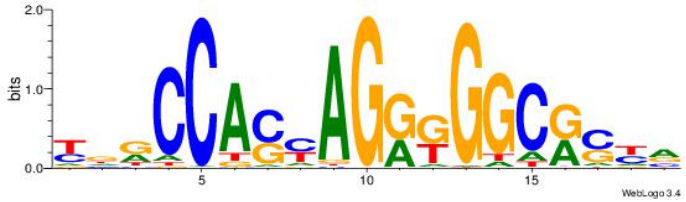


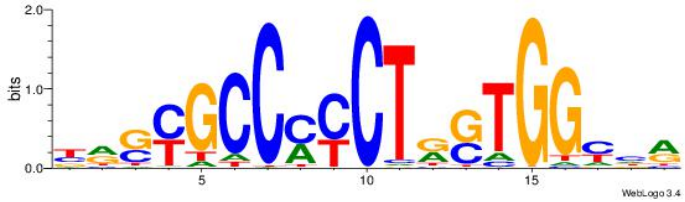
Dataset #: 3
Motif ID: 66
Motif name: CTCF
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 2
Number of overlap: 14
Similarity score: 0.0670544

Alignment:
BMSMGCCYMCTKSTGGMHM
-HVCDBBDBCAGCAG----

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV

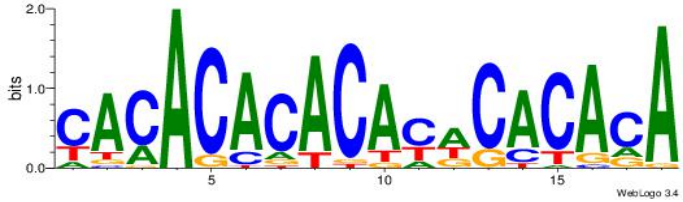
Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM



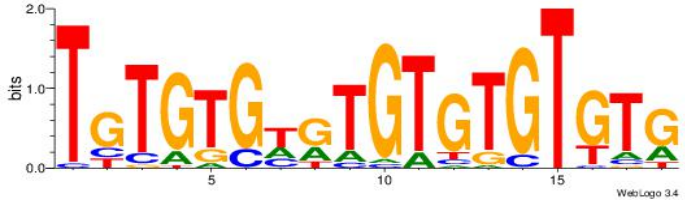


Dataset #: 5 Motif ID: 89 Motif name: TFM1

Original motif Consensus sequence: CACACACACACWCACACA



Reverse complement motif Consensus sequence: TGTGTGWGTGTGTGTGTG



Best Matches for Motif ID 89 (Highest to Lowest)

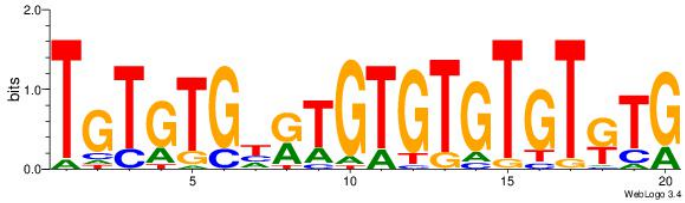
Dataset #:	5
Motif ID:	92
Motif name:	TFM11
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	18
Similarity score:	0

Alignment:

CAMACACACACAYDCACACA
--CACACACACACWCACACA

Original motif Consensus sequence: CAMACACACACAYDCACACA

Reverse complement motif Consensus sequence: TGTGTGDKTGTGTGTGTRTG

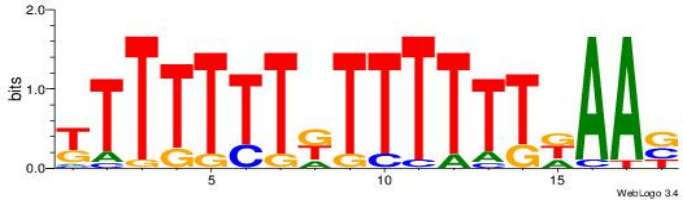


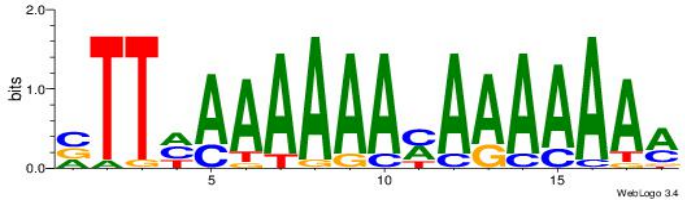
Dataset #:	5
Motif ID:	91
Motif name:	TFM3
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	18
Similarity score:	0.099254

Alignment:
KTTTTTTKTTTTTTDAAB
TGTGTGWGTGTGTGTGTG

Original motif Consensus sequence: KTTTTTTKTTTTTTDAAB

Reverse complement motif Consensus sequence: BTTHAAAAAAYAAAAAAR

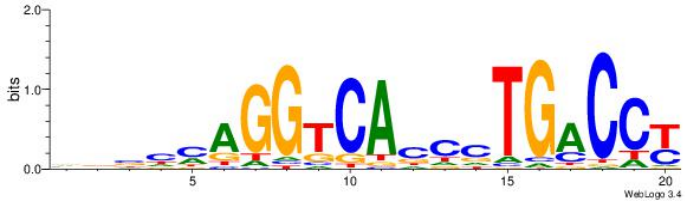




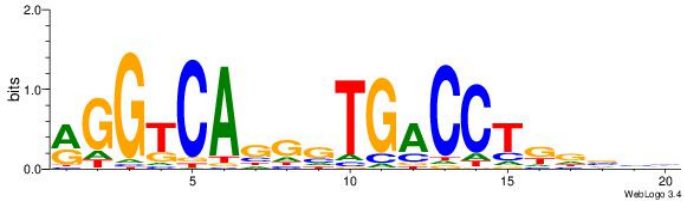
Dataset #: 3
Motif ID: 53
Motif name: ESR1
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 4
Number of overlap: 17
Similarity score: 0.598911

Alignment:
VDBHMAGGTCACCCTGACCY-
---CACACACACACWCACACA

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV



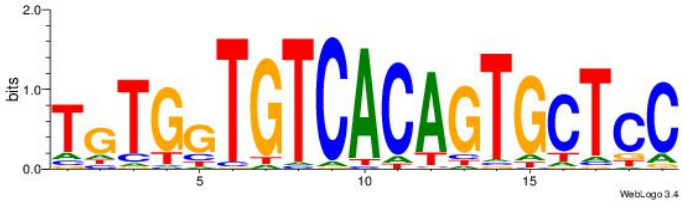
Dataset #: 4

Motif ID:	67
Motif name:	TgTGgTGTCACAGTGCTCC
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	16
Similarity score:	1.09969

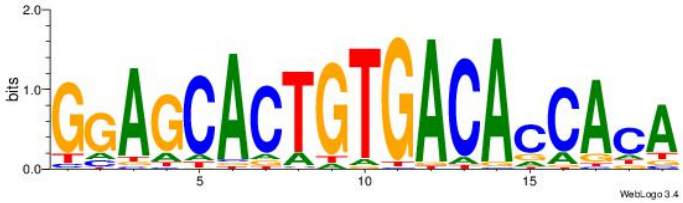
Alignment:

```
GGAGCACTGTGACACCACA--
---CACACACACACWCACACA
```

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA



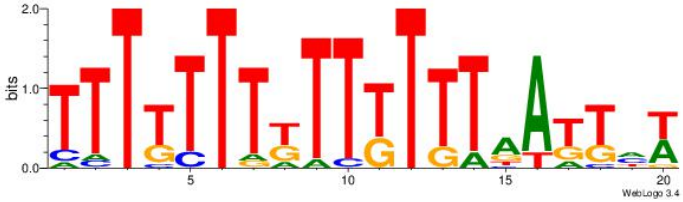
Dataset #:	5
Motif ID:	94
Motif name:	TFM13
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	6
Number of overlap:	15

Similarity score: 1.59953

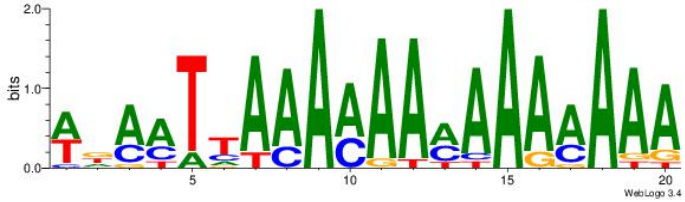
Alignment:

```
---TTTTTTTKTTKTTTAATTHW
TGTGTGWGTGTGTGTGTG-----
```

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW



Reverse complement motif Consensus sequence: WHAATTAAARAARAAAAAAA



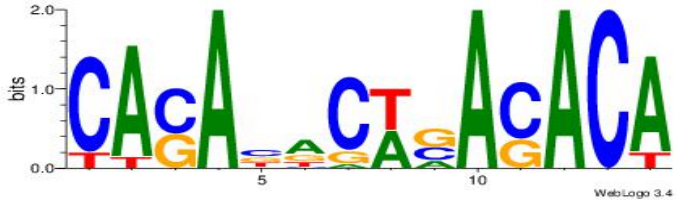
Dataset #: 1
Motif ID: 6
Motif name: Motif 6
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 1
Number of overlap: 14
Similarity score: 2.04528

Alignment:

```
----CASABACWSACACA
CACACACACACWCACACA
```

Original motif Consensus sequence: CASABACWSACACA

Reverse complement motif Consensus sequence: TGTGTSWGTBTST



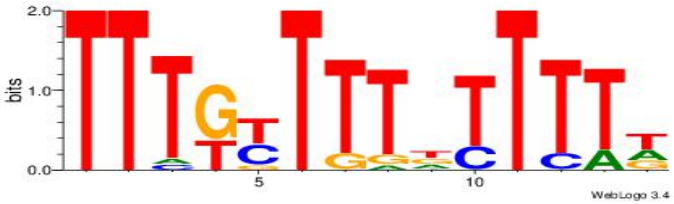
Dataset #:	1
Motif ID:	4
Motif name:	Motif 4
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	14
Similarity score:	2.09655

Alignment:

```
HAAAAHAAARMAAA----
CACACACACACWCACACA
```

Original motif Consensus sequence: HAAAAHAAARMAAA

Reverse complement motif Consensus sequence: TTTRKTTTHTTTTH



Dataset #:	1
Motif ID:	2

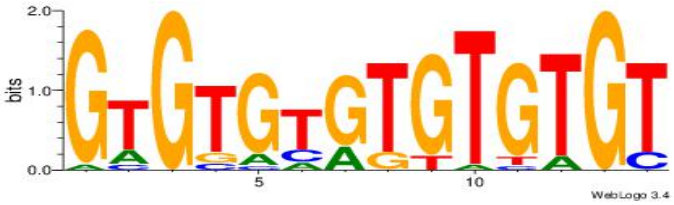
Motif name:	Motif 2
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	13
Similarity score:	2.51954

Alignment:

```
ACACACACACACAC-----
-CACACACACACWCACACA
```

Original motif Consensus sequence: ACACACACACACAC

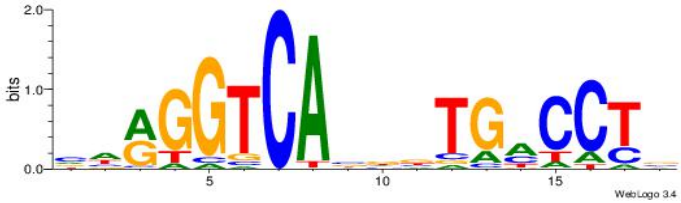
Reverse complement motif Consensus sequence: GTGTGTGTGTGTG



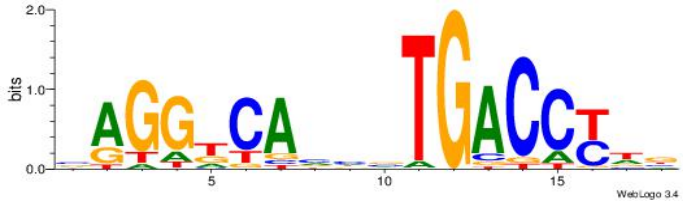
Dataset #:	3
Motif ID:	59
Motif name:	ESR2
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	6
Number of overlap:	13
Similarity score:	2.59375

Alignment:
-----BAGGYCABHBTGACCKHV
CACACACACACWCACACA-----

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB



Reverse complement motif Consensus sequence: BAGGYCABHBTGACCKHV

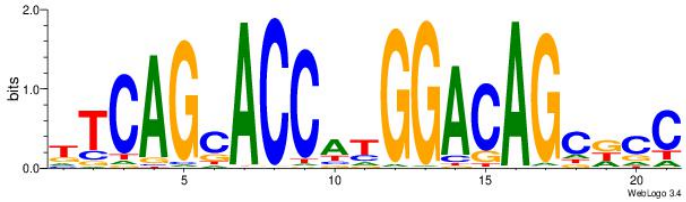


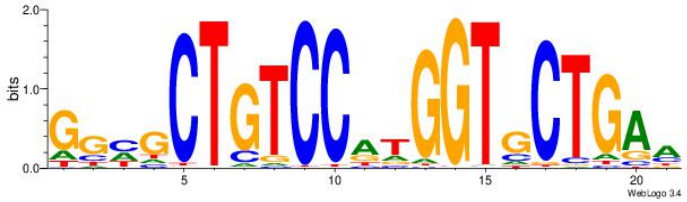
Dataset #:	3
Motif ID:	57
Motif name:	REST
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	9
Number of overlap:	13
Similarity score:	2.59669

Alignment:
TTCAGCACCATGGACAGCKCC-----
--------CACACACACACWCACACA

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC

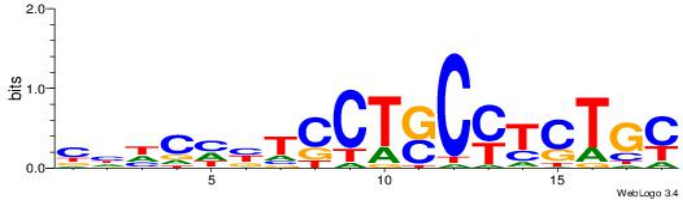
Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA



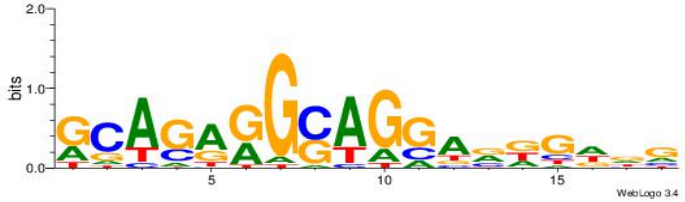


Dataset #: 5 **Motif ID: 90** **Motif name: TFM2**

Original motif Consensus sequence: CHHCHBTCCTSCYTCTGC



Reverse complement motif Consensus sequence: GCAGAKGSAGGABDGHDG



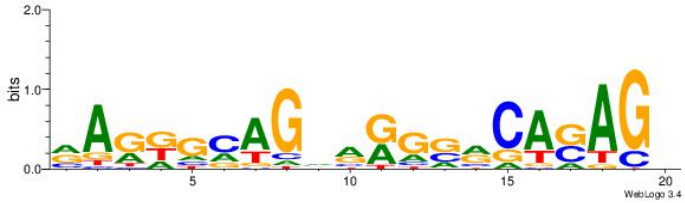
Best Matches for Motif ID 90 (Highest to Lowest)

Dataset #:	5
Motif ID:	93
Motif name:	TFM12
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	18
Similarity score:	0.0675327

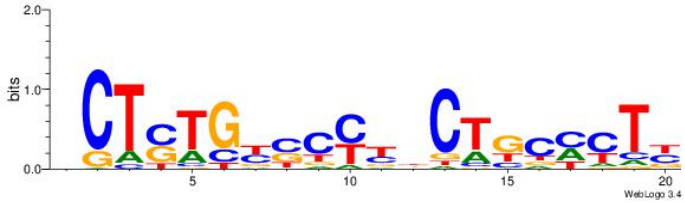
Alignment:

RAGKGMAGVRRGSRCASAGV
--GCAGAKGSAGGABDGHDG

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK

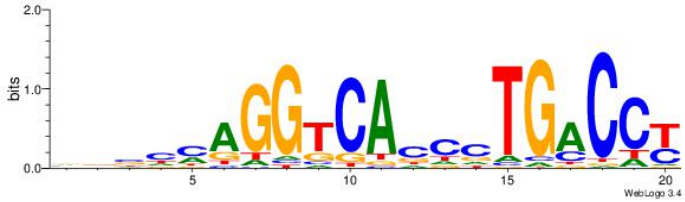


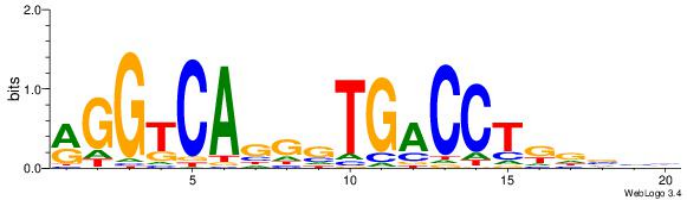
Dataset #:	3
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	18
Similarity score:	0.0741766

Alignment:
VDBHMAGGTCACCCTGACCY
-CHHCHBTCCTSCYTCTGC-

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY

Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

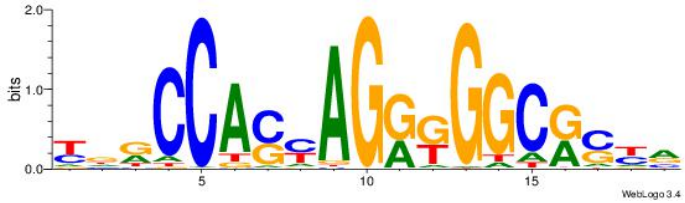




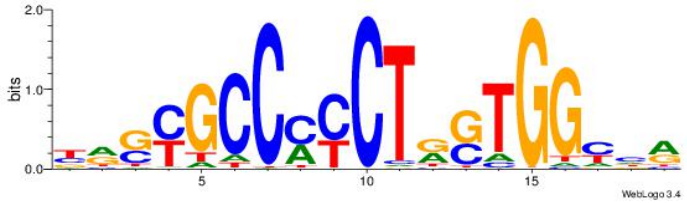
Dataset #: 3
Motif ID: 66
Motif name: CTCF
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Backward
Position number: 1
Number of overlap: 18
Similarity score: 0.0893246

Alignment:
YDRCCASYAGRKGGCRSYV
-GCAGAKGSAGGABDGHDG

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



Reverse complement motif Consensus sequence: BMSMGCCYMCTKSTGGMHM



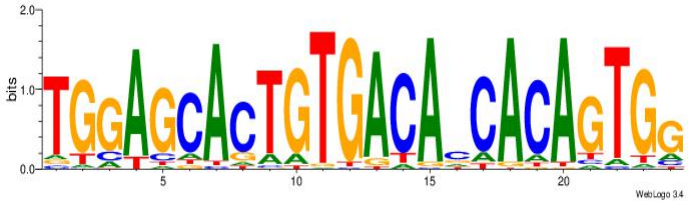
Dataset #: 4

Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	18
Similarity score:	0.0901636

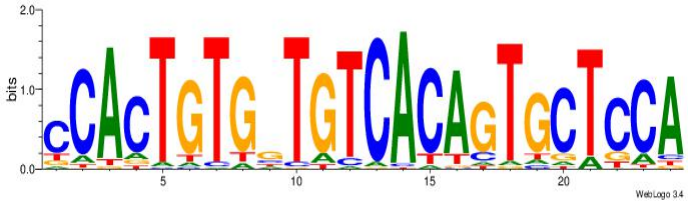
Alignment:

```
TGGAGCACTGTGACAVCACAGTGG
GCAGAKGSAGGABDGHDG------
```

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

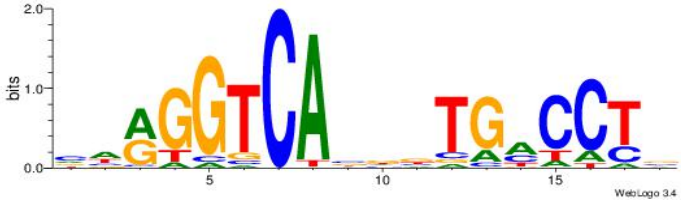


Dataset #:	3
Motif ID:	59
Motif name:	ESR2
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	17

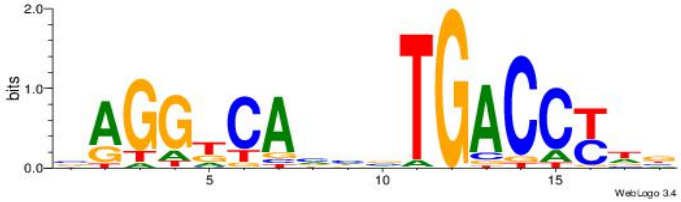
Similarity score: 0.58153

Alignment:
-BAGGYCABHBTGACCKHV
CHHCHBTCCTSCYTCTGC-

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB



Reverse complement motif Consensus sequence: BAGGYCABHBTGACCKHV

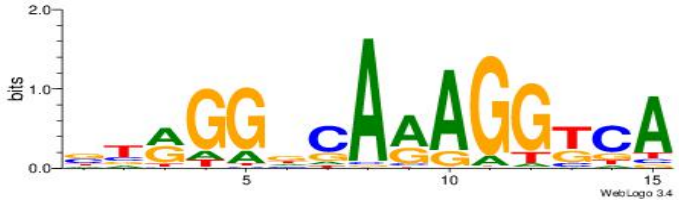


Dataset #: 3
Motif ID: 64
Motif name: PPARGRXRA
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 1
Number of overlap: 15
Similarity score: 1.58383

Alignment:
BTRGGDCARAGGKCA---
GCAGAKGSAGGABDGHDG

Original motif Consensus sequence: BTRGGDCARAGGKCA

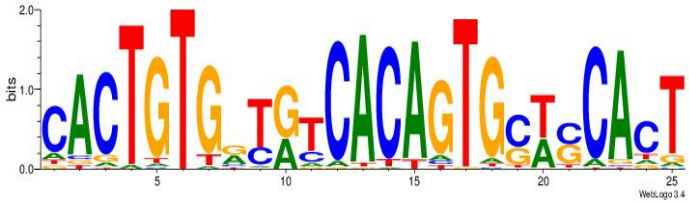
Reverse complement motif Consensus sequence: TGRCCTKTGHCCK



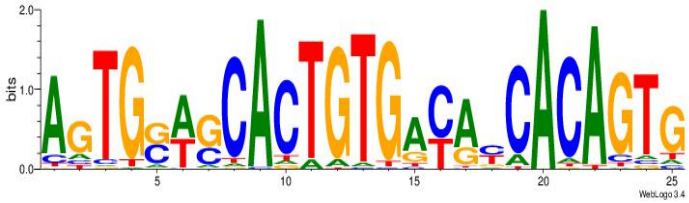
Dataset #: 4
Motif ID: 72
Motif name: CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 11
Number of overlap: 15
Similarity score: 1.5846

Alignment:
CACTGTGRTRTCACAGTGSWSCACT---
----------CHHCHBTCCTSCYTCTGC

Original motif Consensus sequence:
CACTGTGRTRTCACAGTGSWSCACT



Reverse complement motif Consensus sequence:
AGTGSWSCACTGTGAMAMCACAGTG



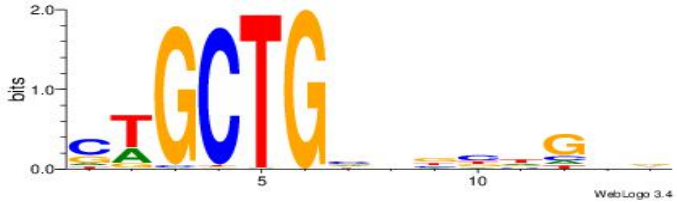
Dataset #: 5

Motif ID:	88
Motif name:	TFF11
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	14
Similarity score:	2.05771

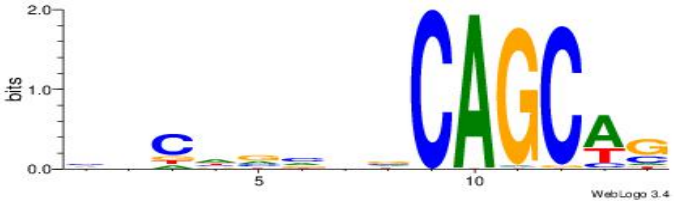
Alignment:

```
----HVCDBBDBCAGCAG
CHHCHBTCCTSCYTCTGC
```

Original motif Consensus sequence: CTGCTGBDBBDGBD



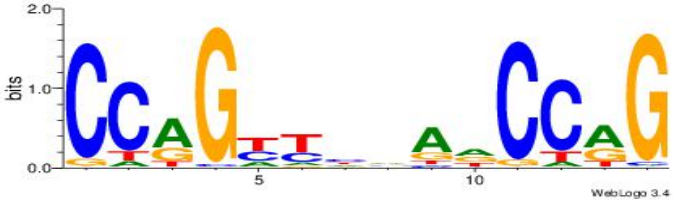
Reverse complement motif Consensus sequence: HVCDBBDBCAGCA



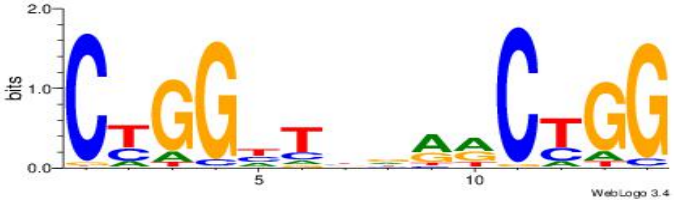
Dataset #:	3
Motif ID:	65
Motif name:	Tcfcp2l1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	14
Similarity score:	2.08379

Alignment:
----CKGGDTBDMMCTGG
GCAGAKGSAGGABDGHDG

Original motif Consensus sequence: CCAGYYHVADCCRG



Reverse complement motif Consensus sequence: CKGGDTBDMMCT

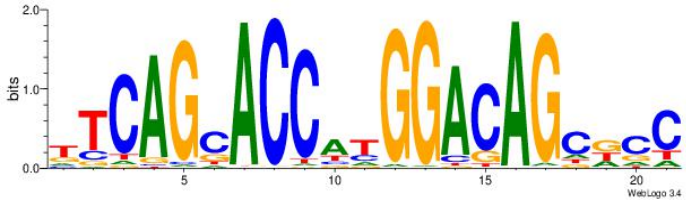


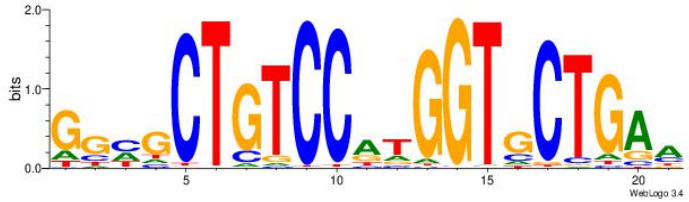
Dataset #:	3
Motif ID:	57
Motif name:	REST
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	8
Number of overlap:	14
Similarity score:	2.08495

Alignment:
----TTCAGCACCATGGACAGCKCC
GCAGAKGSAGGABDGHDG-------

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC

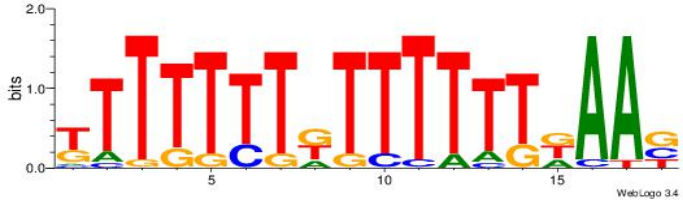
Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA



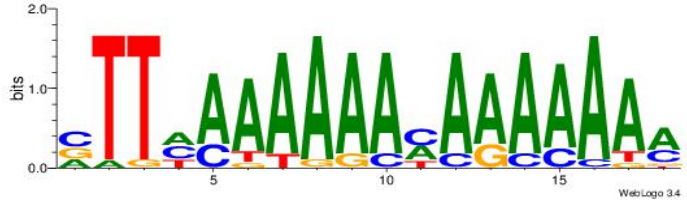


Dataset #: 5 Motif ID: 91 Motif name: TFM3

Original motif Consensus sequence: KTTTTTTKTTTTTTDAAB



Reverse complement motif Consensus sequence: BTTHAAAAAAYAAAAAAR



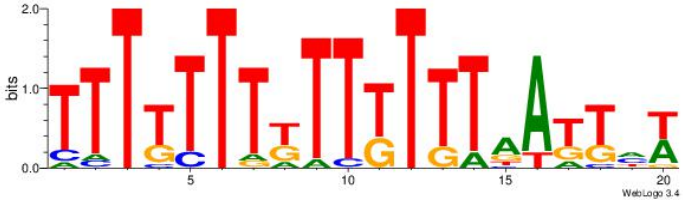
Best Matches for Motif ID 91 (Highest to Lowest)

Dataset #:	5
Motif ID:	94
Motif name:	TFM13
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	18
Similarity score:	0.00694444

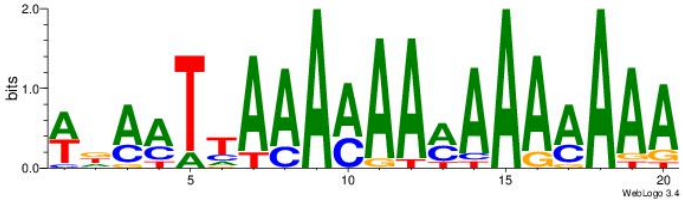
Alignment:

TTTTTTTKTTKTTTAATTHW
KTTTTTTKTTTTTTDAAB--

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW



Reverse complement motif Consensus sequence: WHAATTAAARAARAAAAAAA

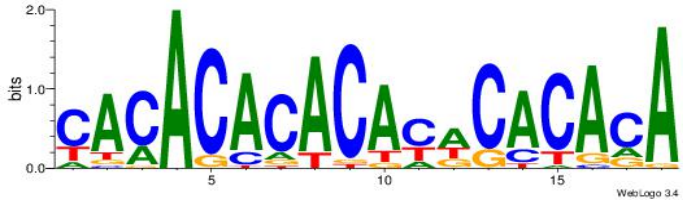


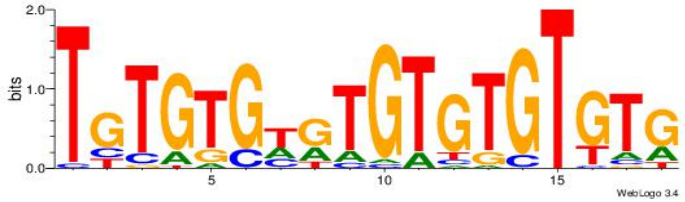
Dataset #:	5
Motif ID:	89
Motif name:	TFM1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	18
Similarity score:	0.0750248

Alignment:
CACACACACACWCACACA
BTTHAAAAAAYAAAAAAR

Original motif Consensus sequence: CACACACACACWCACACA

Reverse complement motif Consensus sequence: TGTGTGWGTGTGTGTGTG



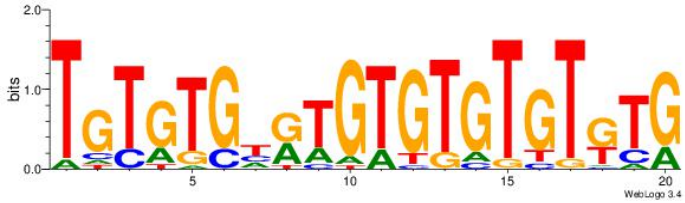


Dataset #: 5
Motif ID: 92
Motif name: TFM11
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 6
Number of overlap: 15
Similarity score: 1.57541

Alignment:
TGTGTGDKTGTGTGTGTRTG---
-----KTTTTTTKTTTTTTDAAB

Original motif Consensus sequence: CAMACACACACAYDCACACA

Reverse complement motif Consensus sequence:
TGTGTGDKTGTGTGTGTRTG



Dataset #: 2

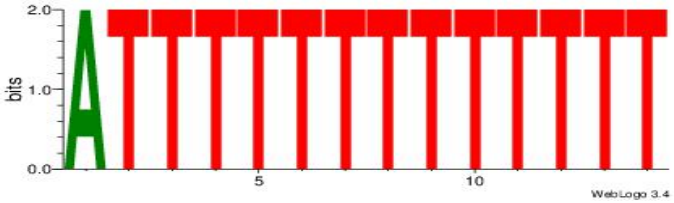
Motif ID:	49
Motif name:	Motif 49
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	14
Similarity score:	2.01116

Alignment:

```
AAAAAAAAAAAAAT----
BTTHAAAAAAYAAAAAAR
```

Original motif Consensus sequence: AAAAAAAAAAAAAT

Reverse complement motif Consensus sequence: ATTTTTTTTTTTTT



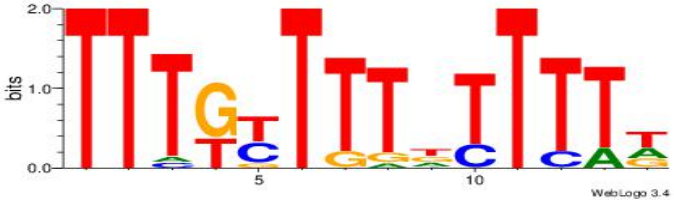
Dataset #:	1
Motif ID:	4
Motif name:	Motif 4
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	14
Similarity score:	2.02946

Alignment:

```
----TTTRKTTTHTTTTH
KTTTTTTKTTTTTTDAAB
```

Original motif Consensus sequence: HAAAAHAAARMAAA

Reverse complement motif Consensus sequence: TTTRKTTTHTTTTH



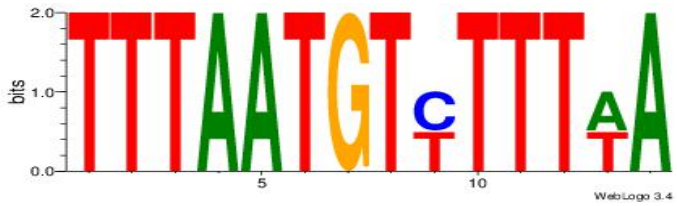
Dataset #:	1
Motif ID:	33
Motif name:	Motif 33
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	14
Similarity score:	2.0692

Alignment:

```
TTTAATGTYTTTWA----
KTTTTTTKTTTTTTDAAB
```

Original motif Consensus sequence: TTTAATGTYTTTWA

Reverse complement motif Consensus sequence: TWAAAKACATTAA



Dataset #:	1
Motif ID:	6
Motif name:	Motif 6
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	14
Similarity score:	2.0735

Alignment:

```
CASABACWSACACA----
BTTHAAAAAAYAAAAAAR
```

Original motif Consensus sequence: CASABACWSACACA

Reverse complement motif Consensus sequence: TGTGTSWGTBTST

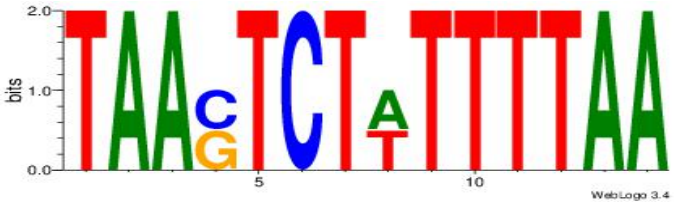
Dataset #:	1
Motif ID:	45

Motif name:	Motif 45
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	14
Similarity score:	2.07366

Alignment:

```
TAASTCTWTTTTAA----
KTTTTTTKTTTTTTDAAB
```

Original motif Consensus sequence: TAASTCTWTTTTAA



Reverse complement motif Consensus sequence: TTAAAAWAGASTT

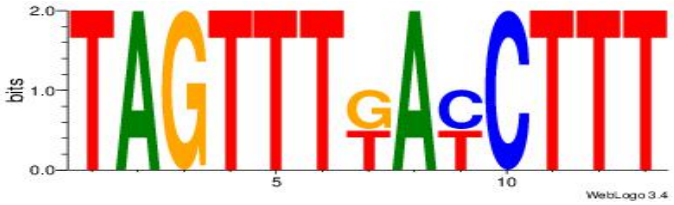
Dataset #:	1
Motif ID:	15
Motif name:	Motif 15
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	13
Similarity score:	2.56147

Alignment:

```
-----TAGTTTYAKCTTT
KTTTTTTKTTTTTTDAAB
```

Original motif Consensus sequence: AAAGRTMAAACTA

Reverse complement motif Consensus sequence: TAGTTTYAKCTTT



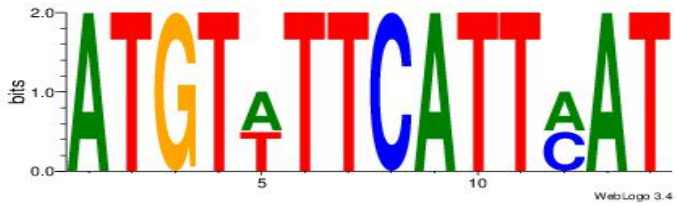
Dataset #:	1
Motif ID:	23
Motif name:	Motif 23
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	13
Similarity score:	2.56748

Alignment:

```
-----ATYAATGAAWACAT
BTTHAAAAAAYAAAAAAR-
```

Original motif Consensus sequence: ATGTWTTCATTMAT

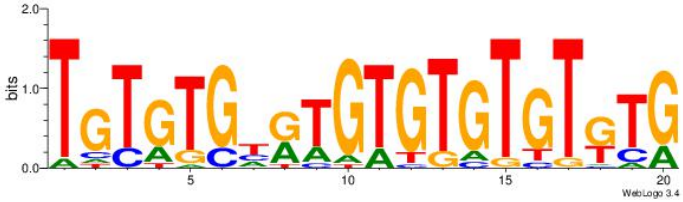
Reverse complement motif Consensus sequence: ATYAATGAAWACA



Dataset #: 5 Motif ID: 92 Motif name: TFM11

Original motif Consensus sequence: CAMACACACACAYDCACACA

Reverse complement motif Consensus sequence: TGTGTGDKTGTGTGTGTRTG



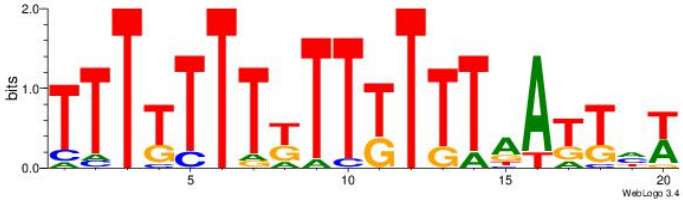
Best Matches for Motif ID 92 (Highest to Lowest)

Dataset #:	5
Motif ID:	94
Motif name:	TFM13
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	19
Similarity score:	0.0921695

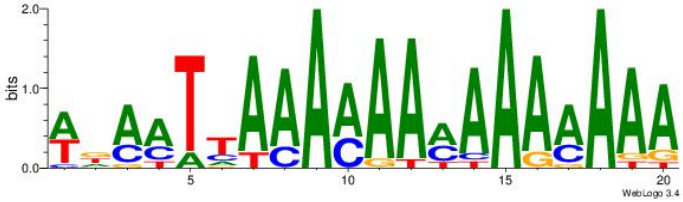
Alignment:

TTTTTTTKTTKTTTAATTHW-
-TGTGTGDKTGTGTGTGTRTG

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW



Reverse complement motif Consensus sequence: WHAATTAAARAARAAAAAAA

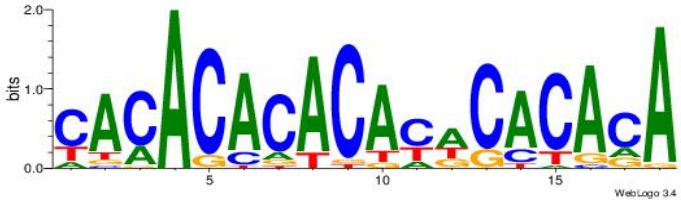


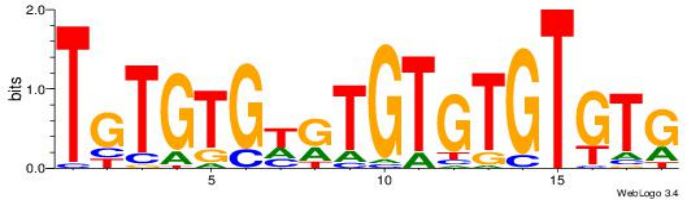
Dataset #:	5
Motif ID:	89
Motif name:	TFM1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	18
Similarity score:	0.5

Alignment:
TGTGTGWGTGTGTGTGTG--
TGTGTGDKTGTGTGTGTRTG

Original motif Consensus sequence: CACACACACACWCACACA

Reverse complement motif Consensus sequence: TGTGTGWGTGTGTGTGTG

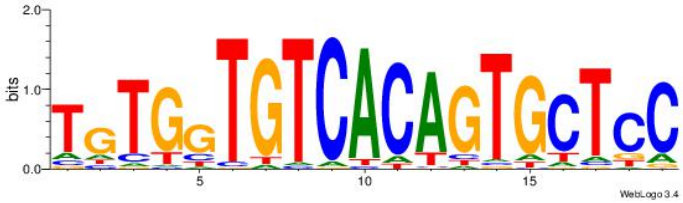




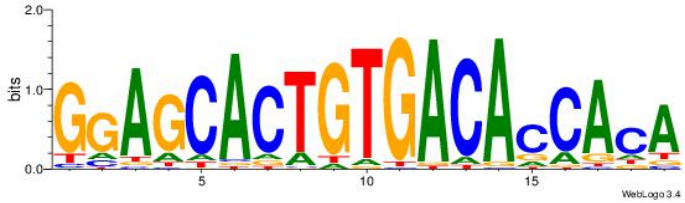
Dataset #: 4
Motif ID: 67
Motif name: TgTGgTGTCACAGTGCTCC
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 4
Number of overlap: 16
Similarity score: 1.597

Alignment:
GGAGCACTGTGACACCACA----
---CAMACACACACAYDCACACA

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA



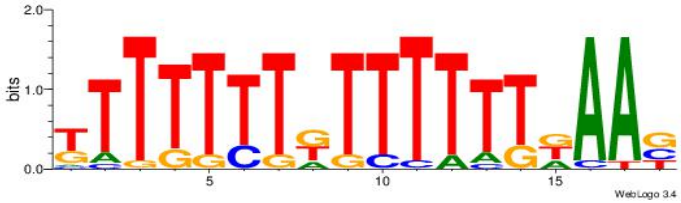
Dataset #: 5

Motif ID:	91
Motif name:	TFM3
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	15
Similarity score:	2.09964

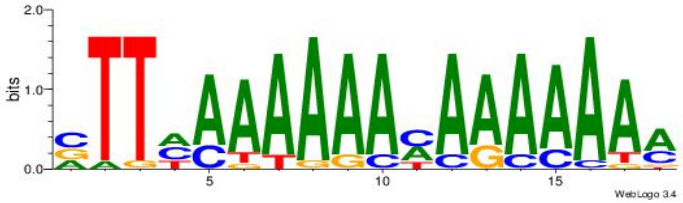
Alignment:

```
-----BTTHAAAAAAYAAAAAAR
CAMACACACACAYDCACACA---
```

Original motif Consensus sequence: KTTTTTTKTTTTTTDAAB



Reverse complement motif Consensus sequence: BTTHAAAAAAYAAAAAAR

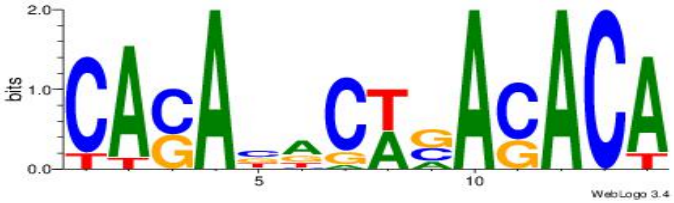


Dataset #:	1
Motif ID:	6
Motif name:	Motif 6
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	14

Similarity score: 2.54253

Alignment:
TGTGTSWGTBTSTG------
TGTGTGDKTGTGTGTGTRTG

Original motif Consensus sequence: CASABACWSACACA



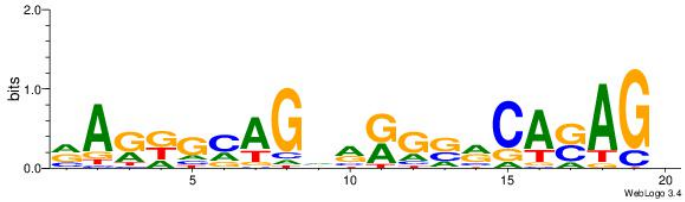
Reverse complement motif Consensus sequence: TGTGTSWGTBTST

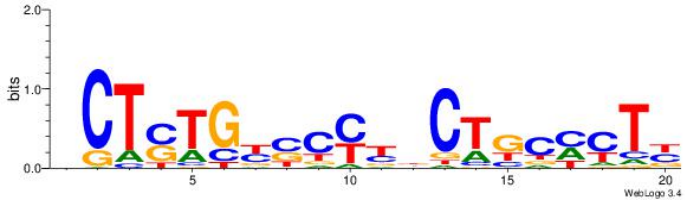
Dataset #: 5
Motif ID: 93
Motif name: TFM12
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 7
Number of overlap: 14
Similarity score: 2.59651

Alignment:
RAGKGMAGVRRGSRCASAGV------
------CAMACACACACAYDCACACA

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV

Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK





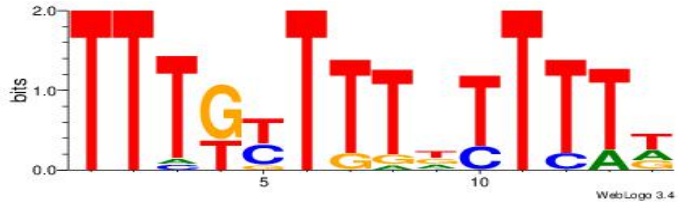
Dataset #:	1
Motif ID:	4
Motif name:	Motif 4
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	14
Similarity score:	2.59861

Alignment:

```
HAAAAHAAARMAAA------
CAMACACACACAYDCACACA
```

Original motif Consensus sequence: HAAAAHAAARMAAA

Reverse complement motif Consensus sequence: TTTRKTTTHTTTTH



Dataset #:	1
Motif ID:	2

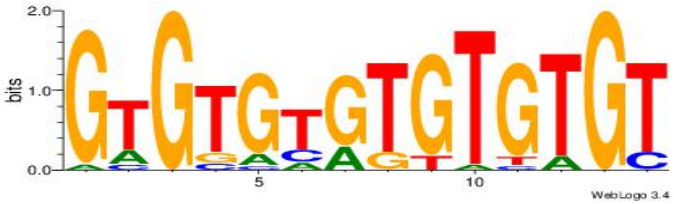
Motif name:	Motif 2
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	13
Similarity score:	3.02049

Alignment:

```
ACACACACACACAC-------
-CAMACACACACAYDCACACA
```

Original motif Consensus sequence: ACACACACACACAC

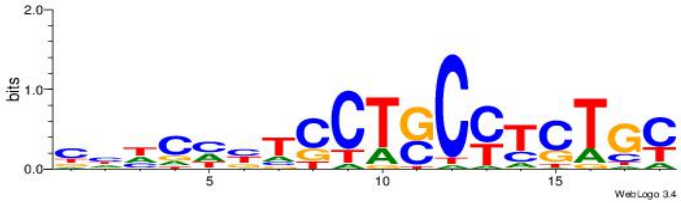
Reverse complement motif Consensus sequence: GTGTGTGTGTGTG



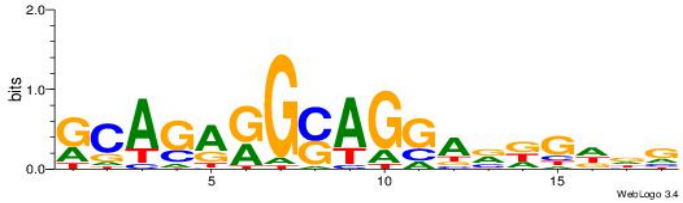
Dataset #:	5
Motif ID:	90
Motif name:	TFM2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	6
Number of overlap:	13
Similarity score:	3.09283

Alignment:
GCAGAKGSAGGABDGHDG-------
-----TGTGTGDKTGTGTGTGTRTG

Original motif Consensus sequence: CHHCHBTCCTSCYTCTGC



Reverse complement motif Consensus sequence: GCAGAKGSAGGABDGHDG

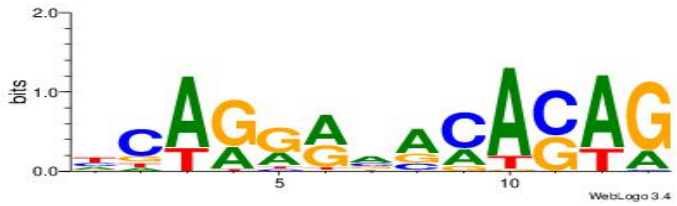


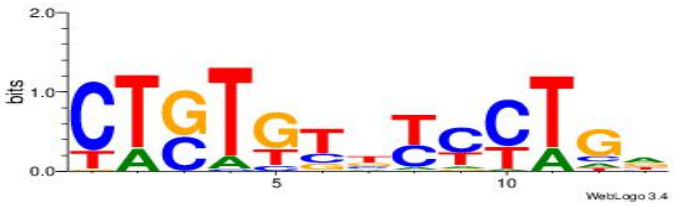
Dataset #:	1
Motif ID:	3
Motif name:	Motif 3
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	13
Similarity score:	3.09411

Alignment:
HCAGRRVACASAG-------
CAMACACACACAYDCACACA

Original motif Consensus sequence: HCAGRRVACASAG

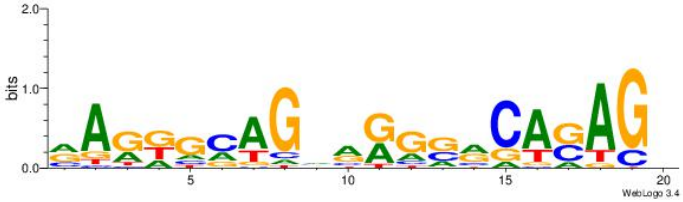
Reverse complement motif Consensus sequence: CTSTGTBKMCTGH



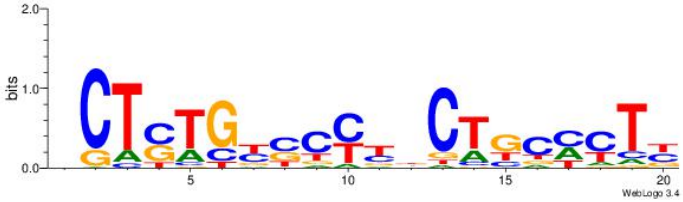


Dataset #: 5 **Motif ID: 93** **Motif name: TFM12**

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



Reverse complement motif Consensus sequence: VCTSTGKSCMKBCTRCYCTK



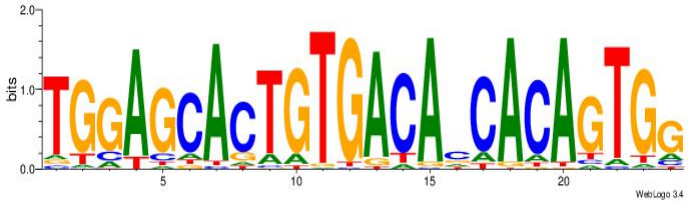
Best Matches for Motif ID 93 (Highest to Lowest)

Dataset #:	4
Motif ID:	73
Motif name:	TGGAGCACTGTGACAcCACAGTGg
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	20
Similarity score:	0.0627086

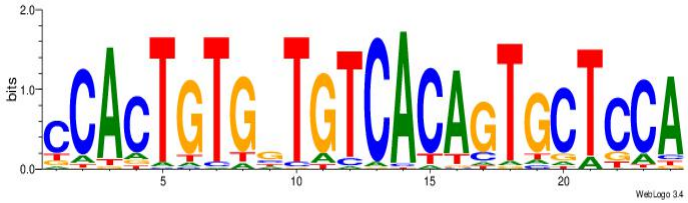
Alignment:

TGGAGCACTGTGACAVCACAGTGG
--RAGKGMAGVRRGSRCASAGV--

Original motif Consensus sequence: TGGAGCACTGTGACAVCACAGTGG



Reverse complement motif Consensus sequence: CCACTGTGVTGTCACAGTGCTCCA

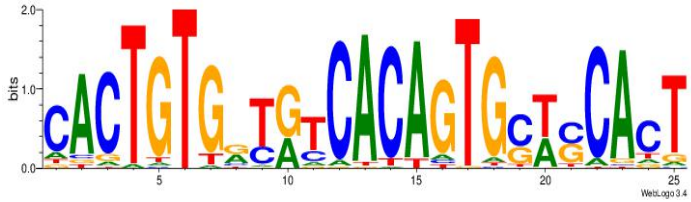


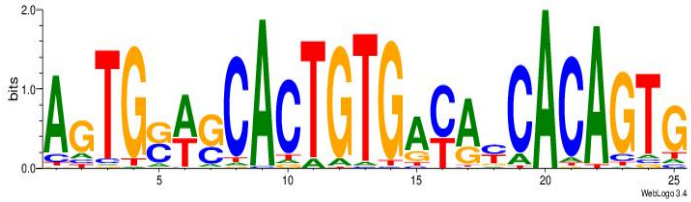
Dataset #:	4
Motif ID:	72
Motif name:	CACTGTGrYrtCACAGTGswsCAcT
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	20
Similarity score:	0.063541

Alignment:
CACTGTGRTRTCACAGTGSWSCACT
----VCTSTGKSCMKBCTRCYCTK-

Original motif Consensus sequence: CACTGTGRTRTCACAGTGSWSCACT

Reverse complement motif Consensus sequence: AGTGSWSCACTGTGAMAMCACAGTG



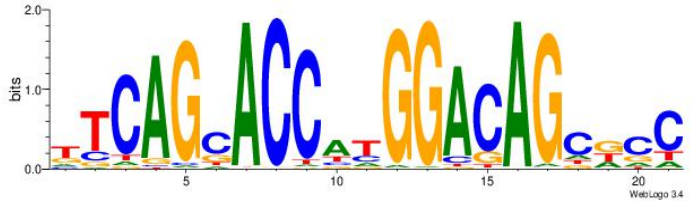


Dataset #:	3
Motif ID:	57
Motif name:	REST
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	20
Similarity score:	0.0650732

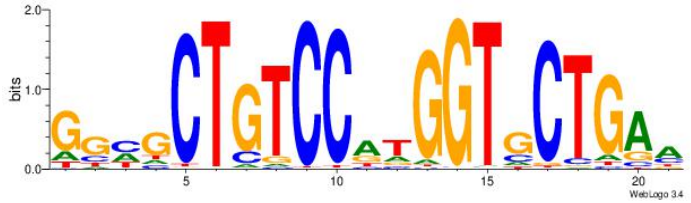
Alignment:

```
GGYGCTGTCCATGGTGCTGAA
-VCTSTGKSCMKBCTRCYCTK
```

Original motif Consensus sequence: TTCAGCACCATGGACAGCKCC



Reverse complement motif Consensus sequence: GGYGCTGTCCATGGTGCTGAA

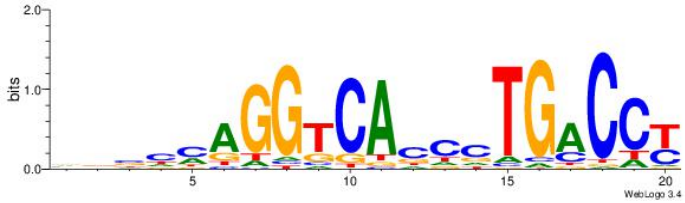


Dataset #:	3

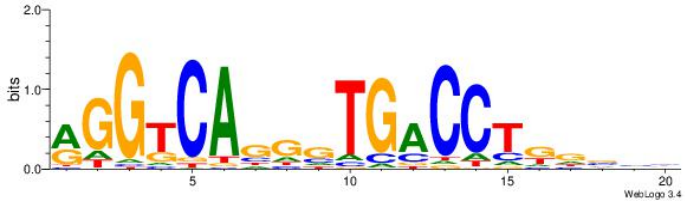
Motif ID:	53
Motif name:	ESR1
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	19
Similarity score:	0.541945

Alignment:
MGGTCAGGGTGACCTRDBHV-
-RAGKGMAGVRRGSRCASAGV

Original motif Consensus sequence: VDBHMAGGTCACCCTGACCY



Reverse complement motif Consensus sequence: MGGTCAGGGTGACCTRDBHV

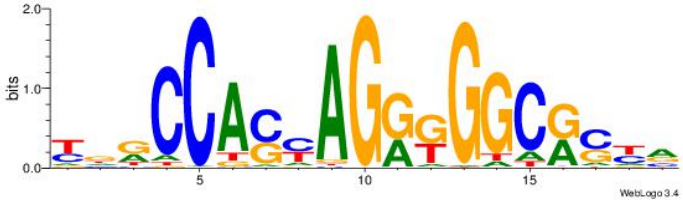


Dataset #:	3
Motif ID:	66
Motif name:	CTCF
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	19

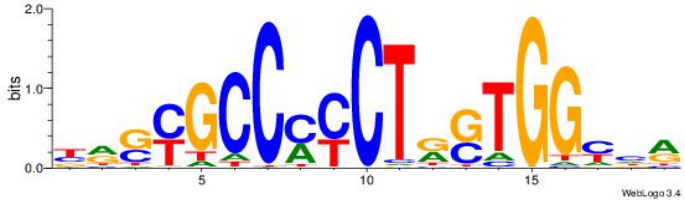
Similarity score: 0.565451

Alignment:
BMSMGCCYMCTKSTGGMHM-
VCTSTGKSCMKBCTRCYCTK

Original motif Consensus sequence: YDRCCASYAGRKGGCRSYV



Reverse complement motif Consensus sequence:
BMSMGCCYMCTKSTGGMHM

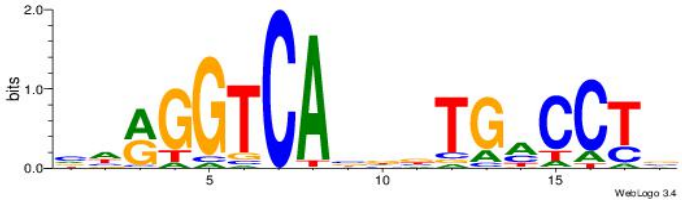


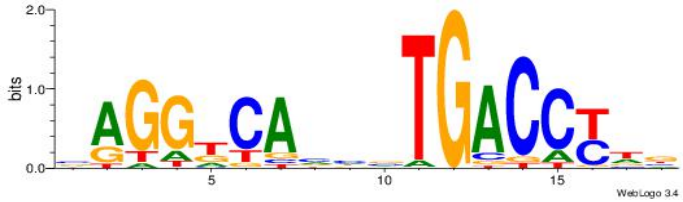
Dataset #: 3
Motif ID: 59
Motif name: ESR2
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 1
Number of overlap: 18
Similarity score: 1.04822

Alignment:
--BAGGYCABHBTGACCKHV
RAGKGMAGVRRGSRCASAGV

Original motif Consensus sequence: VHRGGTCABDBTGMCCTB

Reverse complement motif Consensus sequence:
BAGGYCABHBTGACCKHV

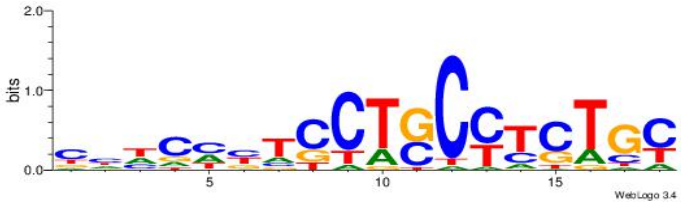




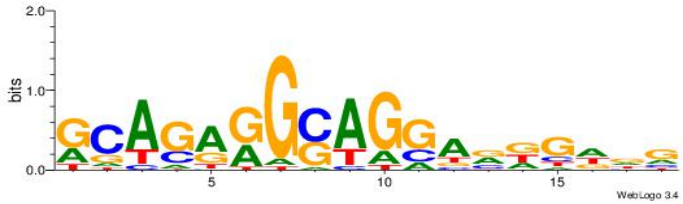
Dataset #: 5
Motif ID: 90
Motif name: TFM2
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Backward
Position number: 1
Number of overlap: 18
Similarity score: 1.04851

Alignment:
--CHHCHBTCCTSCYTCTGC
VCTSTGKSCMKBCTRCYCTK

Original motif Consensus sequence: CHHCHBTCCTSCYTCTGC



Reverse complement motif Consensus sequence: GCAGAKGSAGGABDGHDG



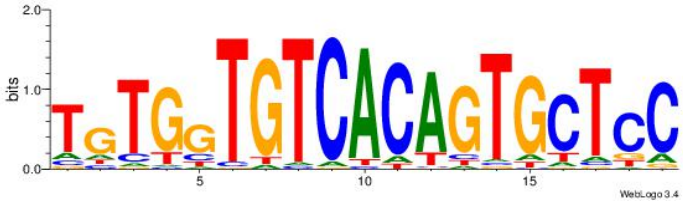
Dataset #: 4

Motif ID:	67
Motif name:	TgTGgTGTCACAGTGCTCC
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	18
Similarity score:	1.06391

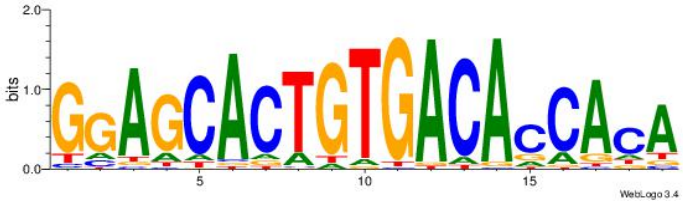
Alignment:

```
TGTGGTGTCACAGTGCTCC--
-VCTSTGKSCMKBCTRCYCTK
```

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA

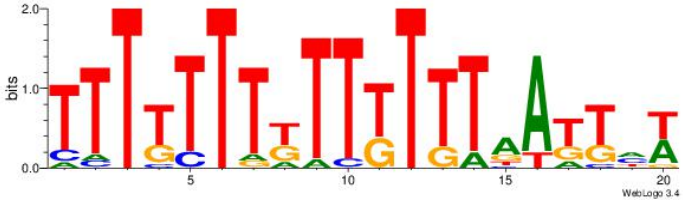


Dataset #:	5
Motif ID:	94
Motif name:	TFM13
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	18

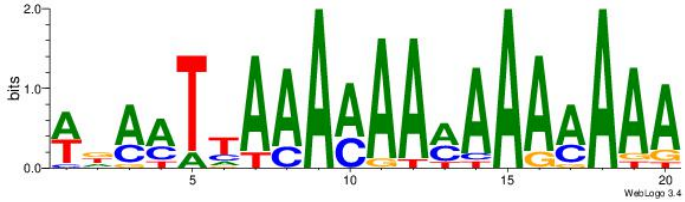
Similarity score: 1.06828

Alignment:
WHAATTAAARAARAAAAAAA--
--RAGKGMAGVRRGSRCASAGV

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW



Reverse complement motif Consensus sequence:
WHAATTAAARAARAAAAAAA

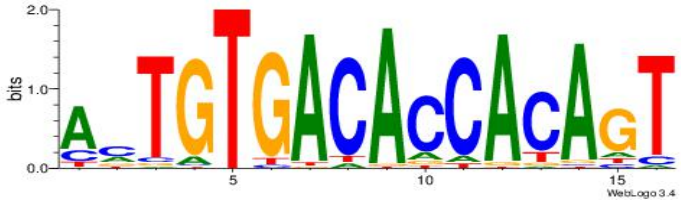


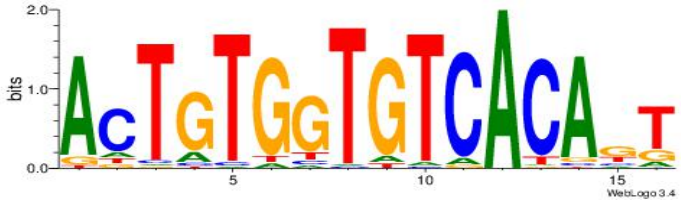
Dataset #:	4
Motif ID:	71
Motif name:	AmTGTGACACCACAGT
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	16
Similarity score:	2.06801

Alignment:
----AMTGTGACACCACAGT
RAGKGMAGVRRGSRCASAGV

Original motif Consensus sequence: AMTGTGACACCACAGT

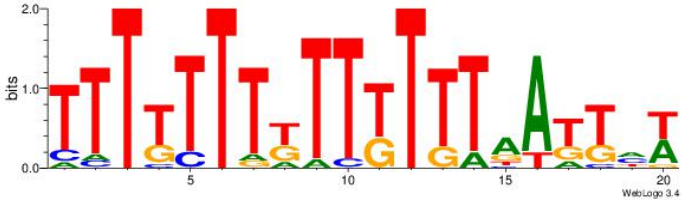
Reverse complement motif Consensus sequence:
ACTGTGGTGTCACART



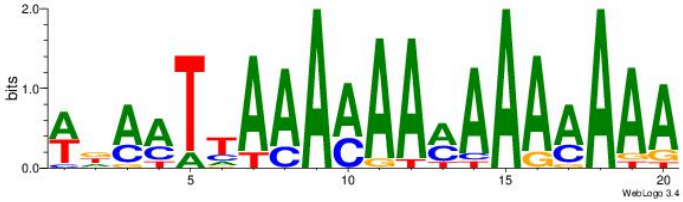


Dataset #: 5 Motif ID: 94 Motif name: TFM13

Original motif Consensus sequence: TTTTTTTKTTKTTTAATTHW



Reverse complement motif Consensus sequence: WHAATTAAARAARAAAAAAA



Best Matches for Motif ID 94 (Highest to Lowest)

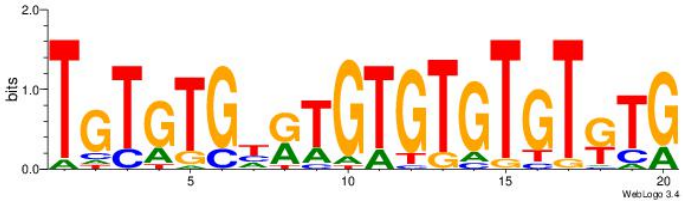
Dataset #:	5
Motif ID:	92
Motif name:	TFM11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	19
Similarity score:	0.0813331

Alignment:

-CAMACACACACAYDCACACA
WHAATTAAARAARAAAAAAA-

Original motif Consensus sequence: CAMACACACACAYDCACACA

Reverse complement motif Consensus sequence: TGTGTGDKTGTGTGTGTRTG

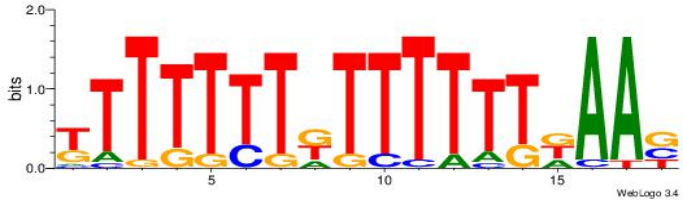


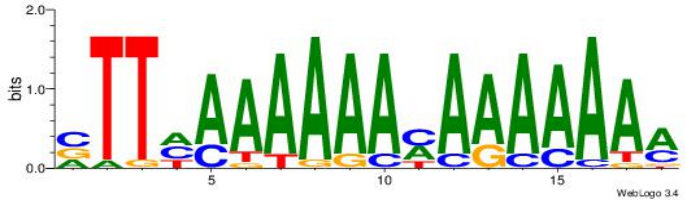
Dataset #:	5
Motif ID:	91
Motif name:	TFM3
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	18
Similarity score:	0.520337

Alignment:
KTTTTTTKTTTTTTDAAB--
TTTTTTTKTTKTTTAATTHW

Original motif Consensus sequence: KTTTTTTKTTTTTTDAAB

Reverse complement motif Consensus sequence: BTTHAAAAAAYAAAAAAR

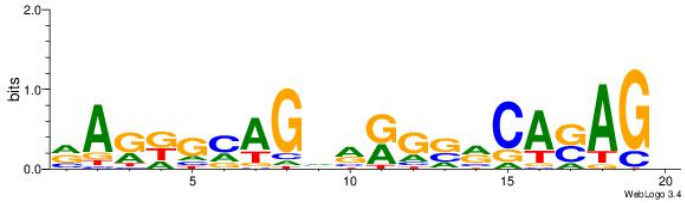




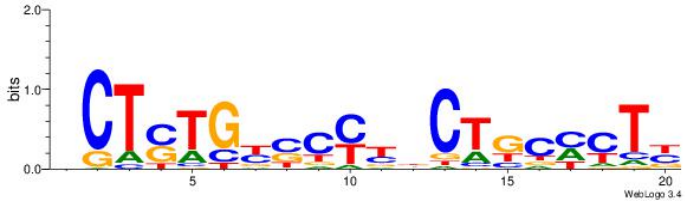
Dataset #: 5
Motif ID: 93
Motif name: TFM12
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 3
Number of overlap: 18
Similarity score: 0.585681

Alignment:
--VCTSTGKSCMKBCTRCYCTK
TTTTTTTKTTKTTTAATTHW--

Original motif Consensus sequence: RAGKGMAGVRRGSRCASAGV



Reverse complement motif Consensus sequence:
VCTSTGKSCMKBCTRCYCTK



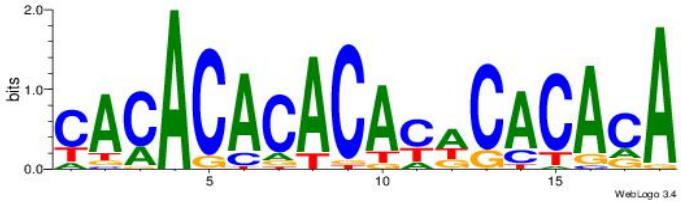
Dataset #: 5

Motif ID:	89
Motif name:	TFM1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	4
Number of overlap:	15
Similarity score:	2.08869

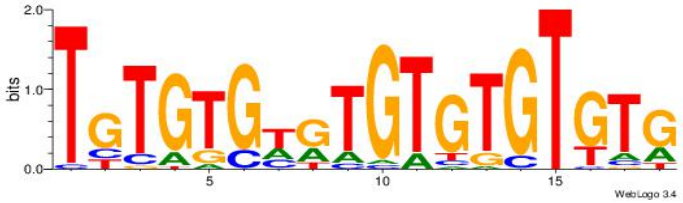
Alignment:

```
CACACACACACWCACACA-----
---WHAATTAAARAARAAAAAAA
```

Original motif Consensus sequence: CACACACACACWCACACA



Reverse complement motif Consensus sequence: TGTGTGWGTGTGTGTGTG



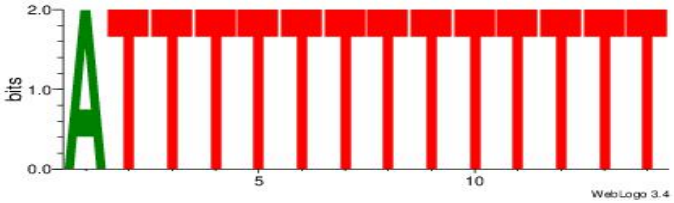
Dataset #:	2
Motif ID:	49
Motif name:	Motif 49
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	14

Similarity score: 2.51913

Alignment:
AAAAAAAAAAAAAT------
WHAATTAAARAARAAAAAAA

Original motif Consensus sequence: AAAAAAAAAAAAAT

Reverse complement motif Consensus sequence: ATTTTTTTTTTTTT

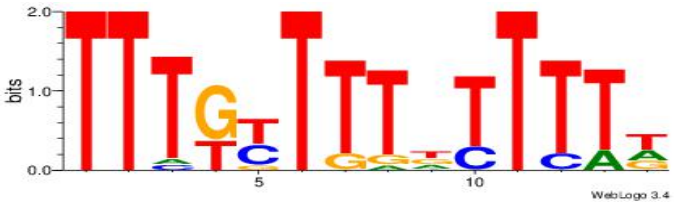


Dataset #: 1
Motif ID: 4
Motif name: Motif 4
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 1
Number of overlap: 14
Similarity score: 2.53469

Alignment:
------TTTRKTTTHTTTTH
TTTTTTTKTTKTTTAATTHW

Original motif Consensus sequence: HAAAAHAAARMAAA

Reverse complement motif Consensus sequence: TTTRKTTTHTTTTH

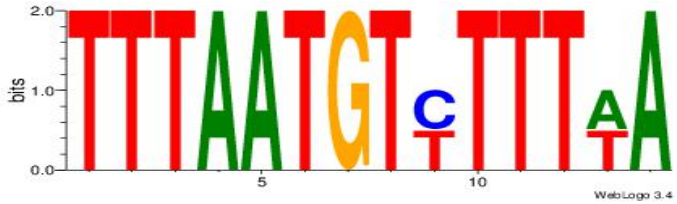


Dataset #:	1
Motif ID:	33
Motif name:	Motif 33
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	14
Similarity score:	2.5727

Alignment:

```
TTTAATGTYTTTWA------
TTTTTTTKTTKTTTAATTHW
```

Original motif Consensus sequence: TTTAATGTYTTTWA



Reverse complement motif Consensus sequence: TWAAAKACATTAA

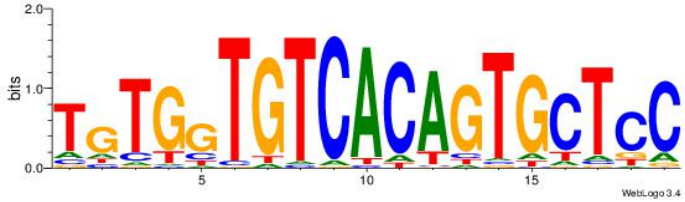
Dataset #:	4
Motif ID:	67

Motif name:	TgTGgTGTCACAGTGCTCC
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	6
Number of overlap:	14
Similarity score:	2.5844

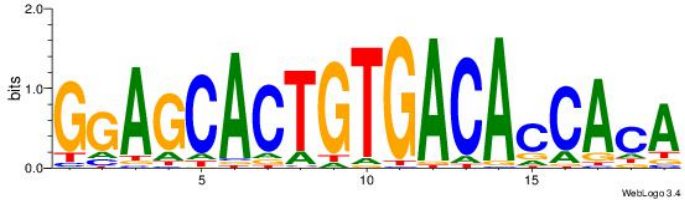
Alignment:

```
------TGTGGTGTCACAGTGCTCC
TTTTTTTKTTKTTTAATTHW-----
```

Original motif Consensus sequence: TGTGGTGTCACAGTGCTCC



Reverse complement motif Consensus sequence: GGAGCACTGTGACACCACA

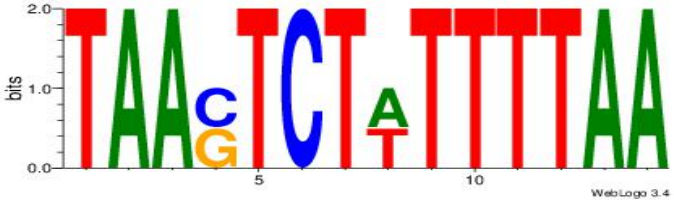


Dataset #:	1
Motif ID:	45
Motif name:	Motif 45
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	14
Similarity score:	2.58546

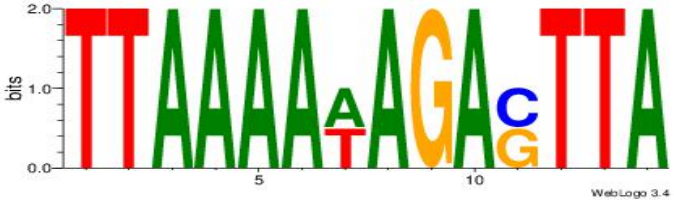
Alignment:

```
------TTAAAAWAGASTTA
WHAATTAAARAARAAAAAAA
```

Original motif Consensus sequence: TAASTCTWTTTTAA



Reverse complement motif Consensus sequence: TTAAAAWAGASTT



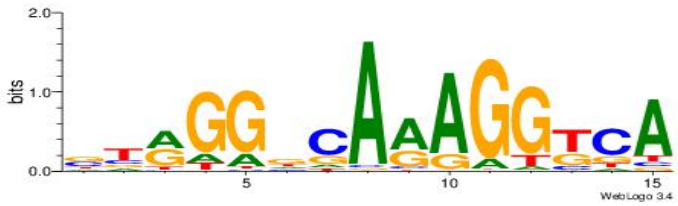
Dataset #:	3
Motif ID:	64
Motif name:	PPARGRXRA
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	14
Similarity score:	2.58746

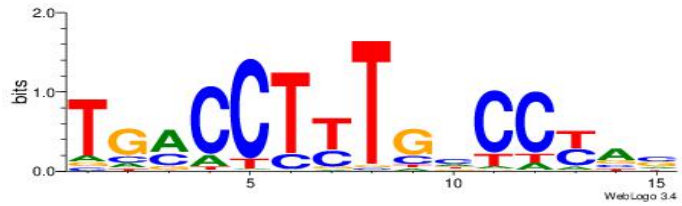
Alignment:

```
TGRCCTKTGHCCKAB------
-TTTTTTTKTTKTTTAATTHW
```

Original motif Consensus sequence: BTRGGDCARAGGKCA

Reverse complement motif Consensus sequence: TGRCCTKTGHCCK





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Runtime: 1079.09 seconds

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