MOTIFSIM - MOTIF SIMilarity Detection Tool

Version 2.2

INPUT

Input Parameters

Number of files:	5
Number of top significant motifs:	5
Number of best matches:	5
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

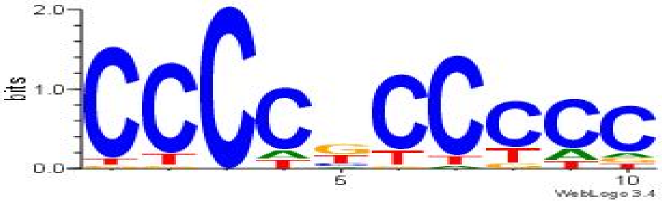
File name	Count of motifs	Dataset number
DREME_DM230.txt	1	1
MEME_DM230.txt	20	2
PScanChIP_DM230.txt	14	3
RSAT_peak-motifs_DM230.txt	10	4
W-ChIPMotifs_DM230.txt	11	5

RESULTS

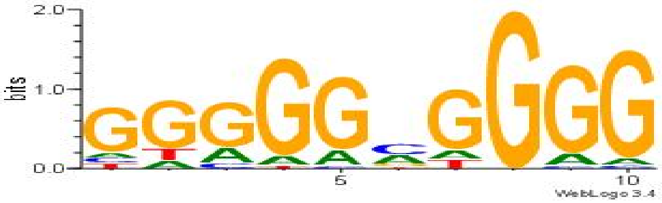
Top 5 Significant Motifs - Global Matching (Highest to Lowest)

Dataset #: 3 **Motif ID: 24** **Motif name: SP1**

Original motif Consensus sequence: CCCCKCCCCC



Reverse complement motif Consensus sequence: GGGGGYGGGG



Best Matches for Top Significant Motif ID 24 (Highest to Lowest)

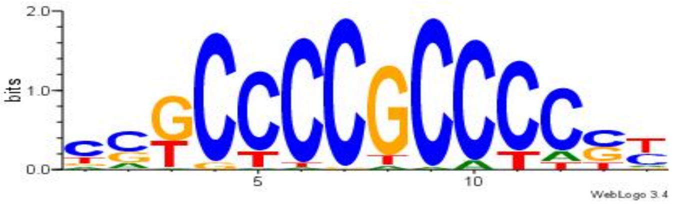
Dataset #:	2
Motif ID:	7
Motif name:	Motif 7
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	10
Similarity score:	0.00451594

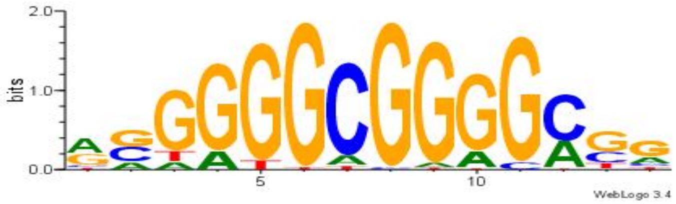
Alignment:

```
CSKCCCCGCCCCSY
---CCCCKCCCCC-
```

Original motif Consensus sequence: CSKCCCCGCCCCSY

Reverse complement motif Consensus sequence: MSGGGGCGGGGY



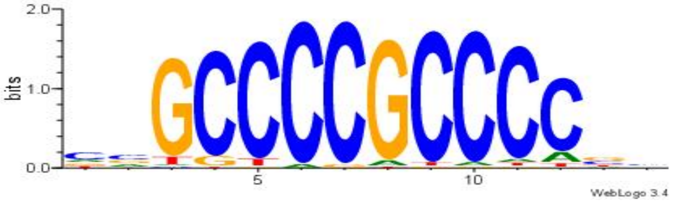


Dataset #: 4
Motif ID: 36
Motif name: csGCCCCGCCCCsc
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 4
Number of overlap: 10
Similarity score: 0.00965796

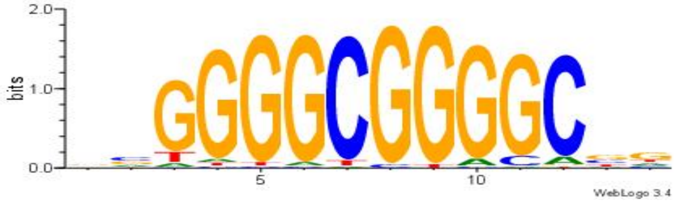
Alignment:

```
HVGCCCCGCCCCBB
---CCCCKCCCCC-
```

Original motif Consensus sequence: HVGCCCCGCCCCBB



Reverse complement motif Consensus sequence: BBGGGGCGGGGC



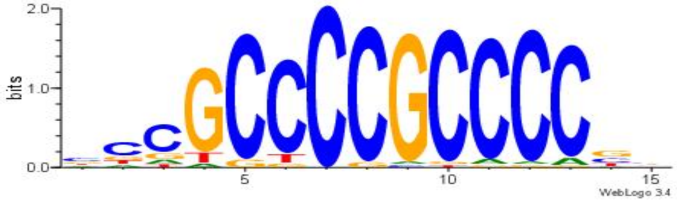
Dataset #: 4
Motif ID: 38

Motif name: cccGCCCCGCCCCsb
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: 0.0127292

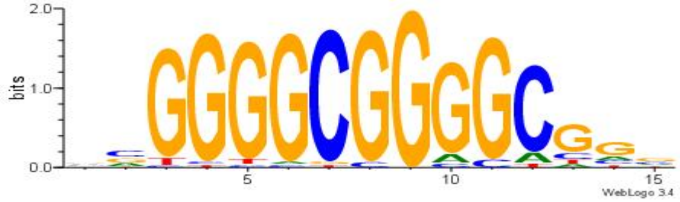
Alignment:

```
BCCGCCCCGCCCCBB
----CCCCKCCCCC-
```

Original motif Consensus sequence: BCCGCCCCGCCCCBB



Reverse complement motif Consensus sequence: BBGGGGCGGGGCGGB



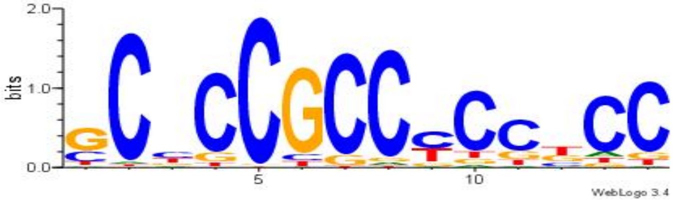
Dataset #: 5
Motif ID: 50
Motif name: TFF11
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 4
Number of overlap: 10
Similarity score: 0.0174405

Alignment:

```
GGMGGRGGCGGVGC
---GGGGGYGGGG-
```

Original motif Consensus sequence: GGMGGRGGCGGVGC

Reverse complement motif Consensus sequence: GCVCCGCCMCCYC



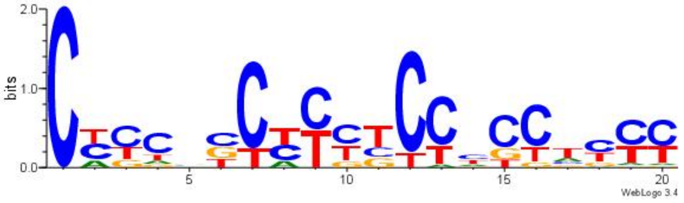
Dataset #:	5
Motif ID:	54
Motif name:	TFM12
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	7
Number of overlap:	10
Similarity score:	0.0301548

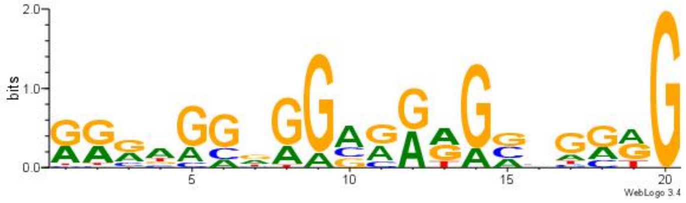
Alignment:

```
CYYCBBCYYYTCCHCCTYYY
------CCCCKCCCCC----
```

Original motif Consensus sequence: CYYCBBCYYYTCCHCCTYYY

Reverse complement motif Consensus sequence: KKKAGGDGGAKKMGBBGKMG

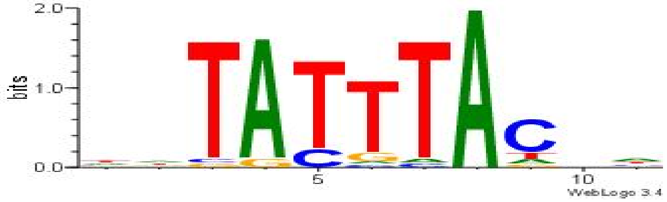




Dataset #: 4 Motif ID: 45 Motif name: wbgTAAATAww

Original motif Consensus sequence: DBGTAAATAHD

Reverse complement motif Consensus sequence: DHTATTTACBD



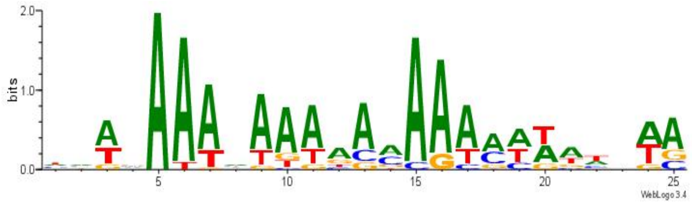
Best Matches for Top Significant Motif ID 45 (Highest to Lowest)

Dataset #:	5
Motif ID:	56
Motif name:	TFM11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	15
Number of overlap:	11
Similarity score:	0.0192768

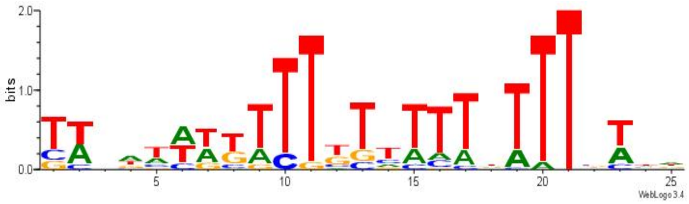
Alignment:

```
TWVHWWWYTTTYTTTTTHTTTVWBH
--------------DHTATTTACBD
```

Original motif Consensus sequence:
HDWVAAAHAAAAAMAAAMWWWHBWA



Reverse complement motif Consensus sequence:
TWVHWWWYTTTYTTTTTHTTTVWBH

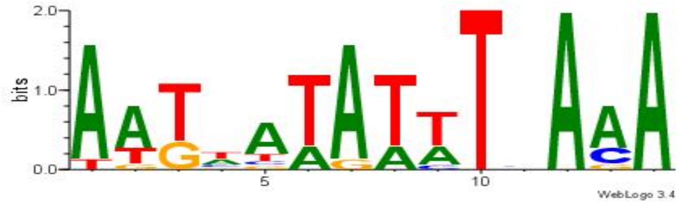


Dataset #:	2
Motif ID:	9
Motif name:	Motif 9
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	4
Number of overlap:	11
Similarity score:	0.0250541

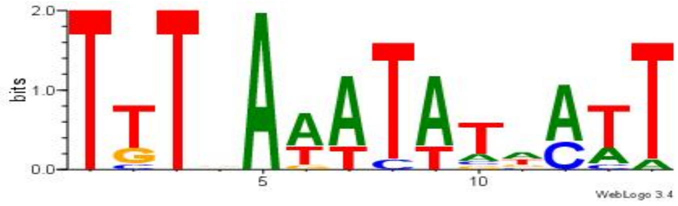
Alignment:

```
AATHATATWTHAAA
DHTATTTACBD---
```

Original motif Consensus sequence: AATHATATWTHAAA



Reverse complement motif Consensus sequence: TTTDAWATATHAT



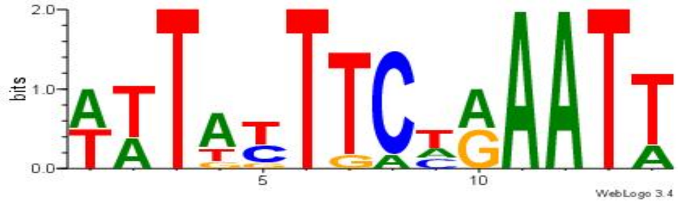
Dataset #: 2
Motif ID: 6
Motif name: Motif 6
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 1
Number of overlap: 11
Similarity score: 0.027895

Alignment:

```
AATTYDGAARTAWW
---DBGTAAATAHD
```

Original motif Consensus sequence: AATTYDGAARTAWW

Reverse complement motif Consensus sequence: WWTAKTTCDKAAT



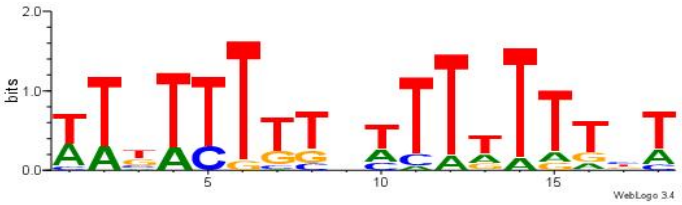
Dataset #: 5
Motif ID: 52
Motif name: TFM1
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 1
Number of overlap: 11

Similarity score:	0.0283217

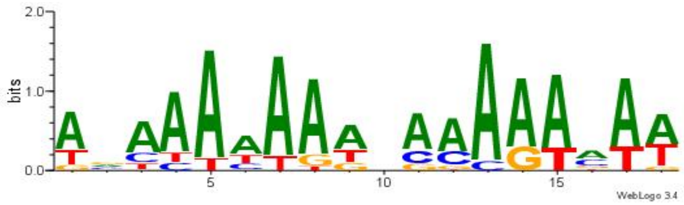
Alignment:

```
ABAAAAAAWHAAAAAARAW
DBGTAAATAHD-------
```

Original motif Consensus sequence: WTKTTTTTHWTTTTTTBT



Reverse complement motif Consensus sequence: ABAAAAAAWHAAAAAARAW



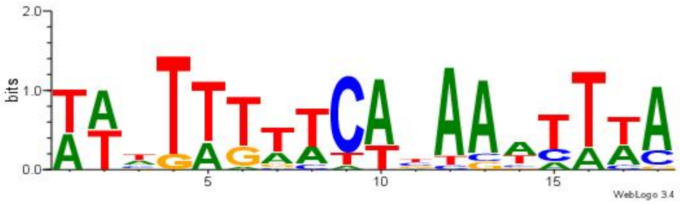
Dataset #:	5
Motif ID:	53
Motif name:	TFM3
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	11
Similarity score:	0.0308097

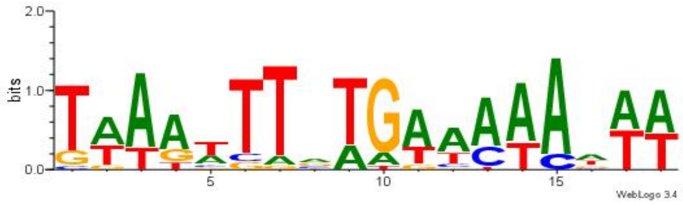
Alignment:

```
TWAAWTTVTGAAAAAHWW
------DBGTAAATAHD-
```

Original motif Consensus sequence: WWHTTTTTCABAAWTTWA

Reverse complement motif Consensus sequence: TWAAWTTVTGAAAAAHWW





Dataset #: 3 **Motif ID: 27** **Motif name: Klf4**

Original motif Consensus sequence: DGGGYGKGGC

Reverse complement motif Consensus sequence: GCCYCMCCCD

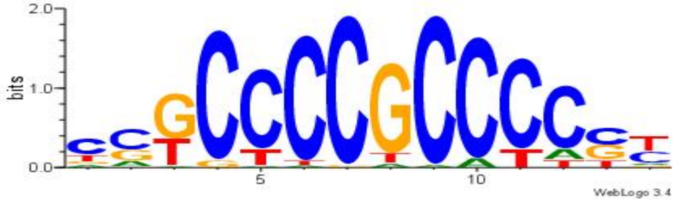
Best Matches for Top Significant Motif ID 27 (Highest to Lowest)

Dataset #:	2
Motif ID:	7
Motif name:	Motif 7
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:	0.0152457

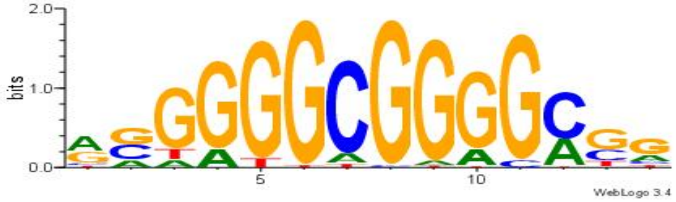
Alignment:

```
CSKCCCCGCCCCSY
--GCCYCMCCCD--
```

Original motif Consensus sequence: CSKCCCCGCCCCSY



Reverse complement motif Consensus sequence: MSGGGGCGGGGY



Dataset #: 4

Motif ID: 36

Motif name: csGCCCCGCCCCsc

Matching format of first motif: Original Motif

Matching format of second motif: Reverse Complement

Direction: Backward

Position number: 3

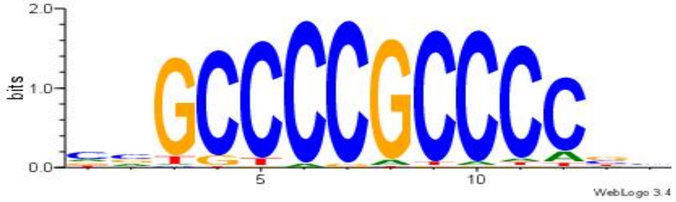
Number of overlap: 10

Similarity score: 0.0160185

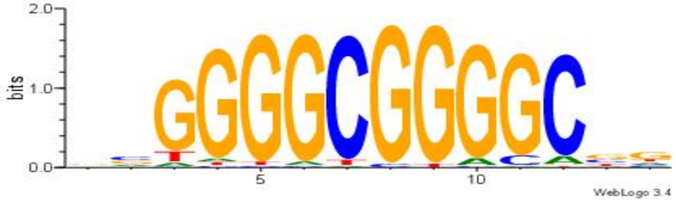
Alignment:

```
BBGGGGCGGGGCVD
--DGGGYGKGGC--
```

Original motif Consensus sequence: HVGCCCCGCCCCBB



Reverse complement motif Consensus sequence: BBGGGGCGGGGC

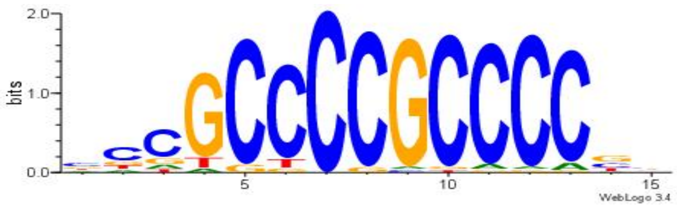


Dataset #: 4
Motif ID: 38
Motif name: cccGCCCCGCCCCsb
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 3
Number of overlap: 10
Similarity score: 0.0194893

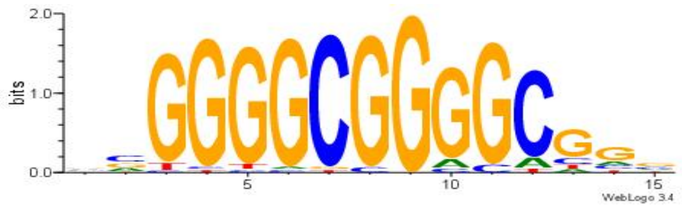
Alignment:

```
BBGGGGCGGGGCGGB
--DGGGYGKGGC---
```

Original motif Consensus sequence: BCCGCCCCGCCCCBB



Reverse complement motif Consensus sequence: BBGGGGCGGGGCGGB



Dataset #: 5
Motif ID: 50
Motif name: TFF11
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: 0.0402906

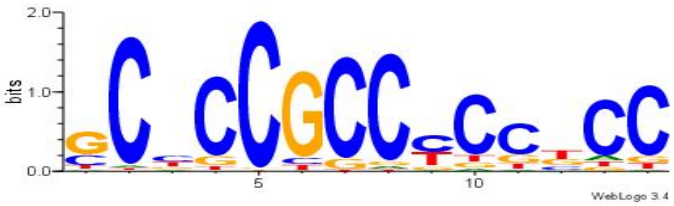
Alignment:

GGMGGRGGCGGVGC

----DGGGYGKGGC

Original motif Consensus sequence: GGMGGRGGCGGVGC

Reverse complement motif Consensus sequence: GCVCCGCCMCCYC



Dataset #: 5

Motif ID: 54

Motif name: TFM12

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: 0.0556427

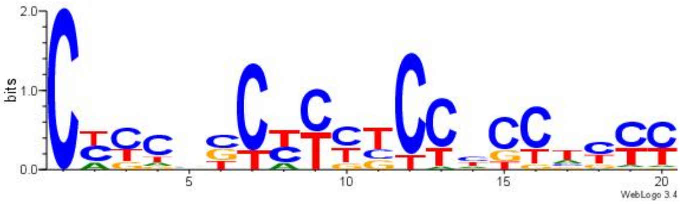
Alignment:

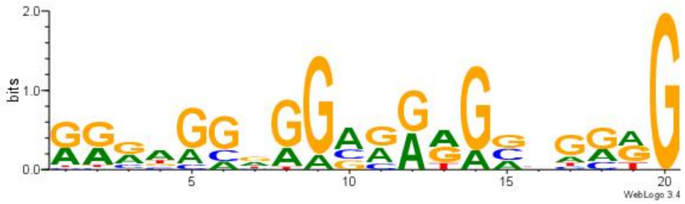
CYYCBBCYYYTCCHCCTYYY

----GCCYCMCCCD------

Original motif Consensus sequence: CYYCBBCYYYTCCHCCTYYY

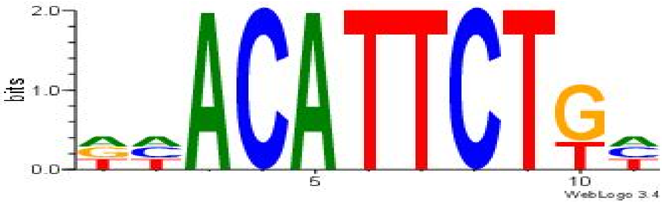
Reverse complement motif Consensus sequence: KKKAGGDGGAKKMGBBGKMG





Dataset #: 4 **Motif ID: 44** **Motif name: dhACATTCTkh**

Original motif Consensus sequence: DHACATTCTGH



Reverse complement motif Consensus sequence: HCAGAATGTHD

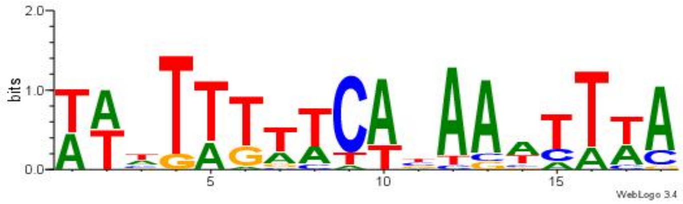
Best Matches for Top Significant Motif ID 44 (Highest to Lowest)

Dataset #:	5
Motif ID:	53
Motif name:	TFM3
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	8
Number of overlap:	11
Similarity score:	0.0217516

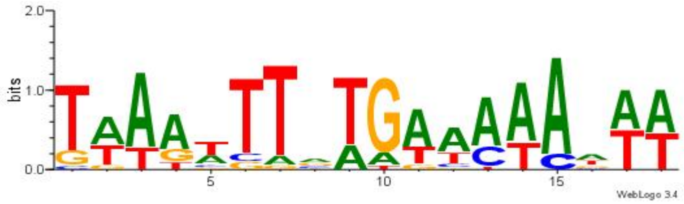
Alignment:

```
TWAAWTTVTGAAAAAHWW
DHACATTCTGH-------
```

Original motif   Consensus sequence: WWHTTTTTCABAAWTTWA



Reverse complement motif   Consensus sequence: TWAAWTTVTGAAAAAHWW

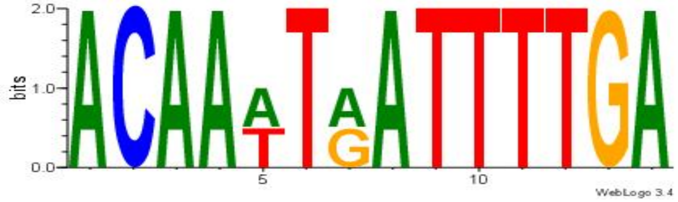


Dataset #:	2
Motif ID:	16
Motif name:	Motif 16
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	11
Similarity score:	0.0258838

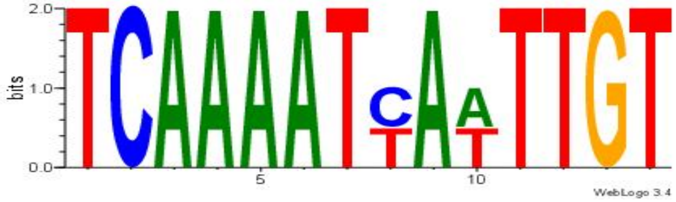
Alignment:

```
TCAAAATKAWTTGT
HCAGAATGTHD---
```

Original motif   Consensus sequence: ACAAWTRATTTTGA



Reverse complement motif   Consensus sequence: TCAAAATKAWTTG

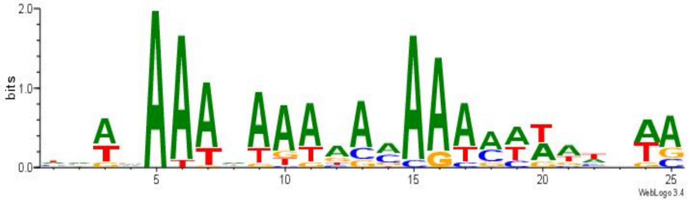


Dataset #:	5
Motif ID:	56
Motif name:	TFM11
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	11
Number of overlap:	11
Similarity score:	0.0307858

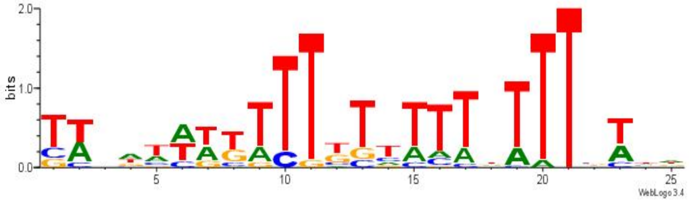
Alignment:

```
TWVHWWWYTTTYTTTTTHTTTVWBH
----DHACATTCTGH----------
```

Original motif Consensus sequence:
HDWVAAAHAAAAAMAAAMWWWHBWA



Reverse complement motif Consensus sequence:
TWVHWWWYTTTYTTTTTHTTTVWBH



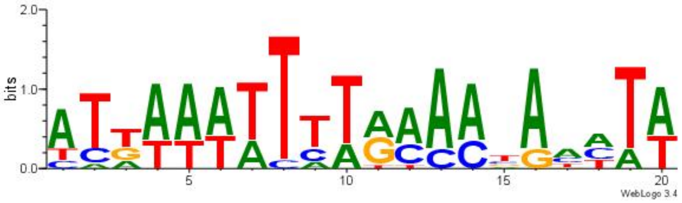
Dataset #:	5
Motif ID:	55
Motif name:	TFM13
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	9

Number of overlap:	11
Similarity score:	0.0357323

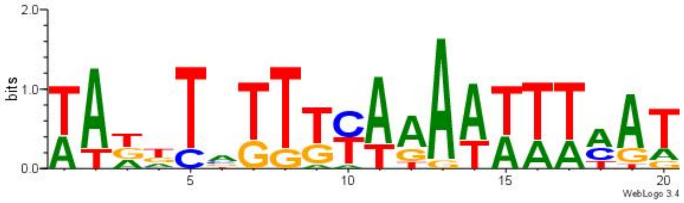
Alignment:

```
ATKAAWTTTTRMAABAHHTW
-DHACATTCTGH--------
```

Original motif Consensus sequence: ATKAAWTTTTRMAABAHHTW



Reverse complement motif Consensus sequence: WAHHTVTTYKAAAAWTTRAT



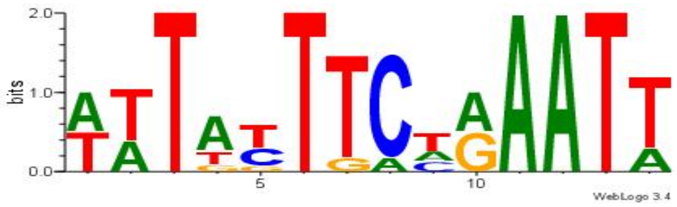
Dataset #:	2
Motif ID:	6
Motif name:	Motif 6
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	4
Number of overlap:	11
Similarity score:	0.0400884

Alignment:

```
AATTYDGAARTAWW
HCAGAATGTHD---
```

Original motif Consensus sequence: AATTYDGAARTAWW

Reverse complement motif Consensus sequence: WWTAKTTCDKAAT



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

Original motif Consensus sequence: GGCGGGGC

Reverse complement motif Consensus sequence: GCCCCGCC

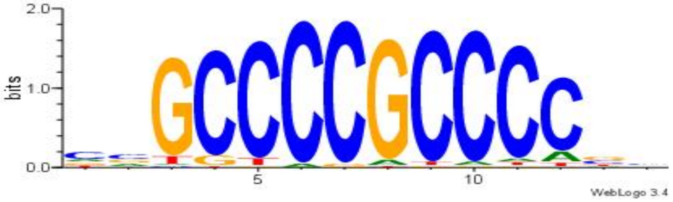
Best Matches for Top Significant Motif ID 1 (Highest to Lowest)

Dataset #:	4
Motif ID:	36
Motif name:	csGCCCCGCCCCsc
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

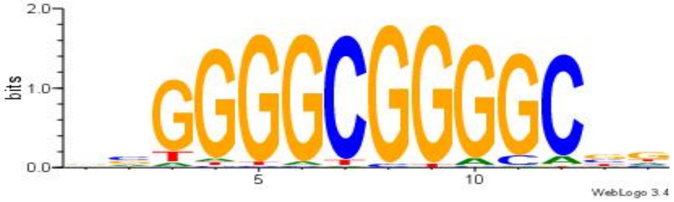
Alignment:

```
BBGGGGCGGGGCVD
----GGCGGGGC--
```

Original motif Consensus sequence: HVGCCCCGCCCCBB



Reverse complement motif Consensus sequence: BBGGGGCGGGGC

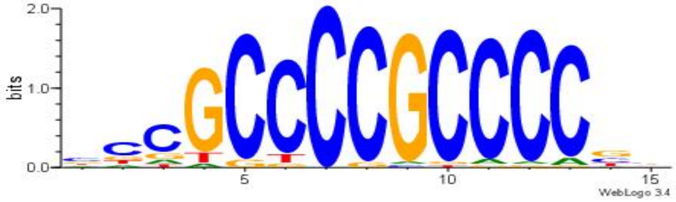


Dataset #:	4
Motif ID:	38
Motif name:	cccGCCCCGCCCCsb
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	5
Number of overlap:	8
Similarity score:	0.00250079

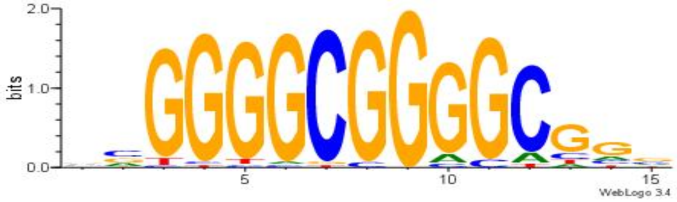
Alignment:

```
BBGGGGCGGGGCGGB
----GGCGGGGC---
```

Original motif Consensus sequence: BCCGCCCCGCCCCBB



Reverse complement motif Consensus sequence: BBGGGGCGGGGCGGB

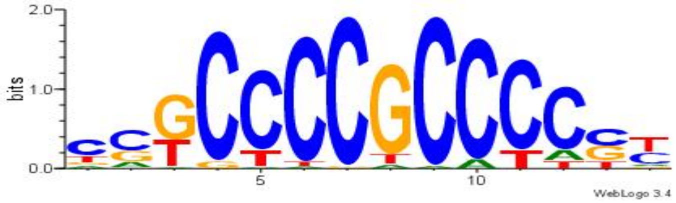


Dataset #: 2
Motif ID: 7
Motif name: Motif 7
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 5
Number of overlap: 8
Similarity score: 0.0149958

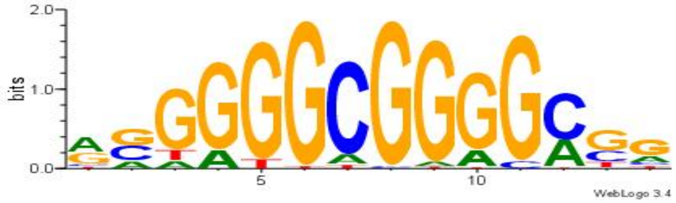
Alignment:

```
MSGGGGCGGGGYSG
----GGCGGGGC--
```

Original motif Consensus sequence: CSKCCCCGCCCCSY



Reverse complement motif Consensus sequence: MSGGGGCGGGGY



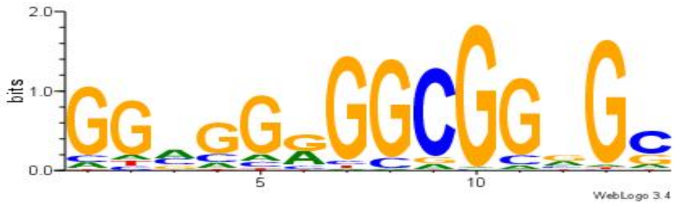
Dataset #: 5
Motif ID: 50
Motif name: TFF11
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 7
Number of overlap: 8

Similarity score: 0.0348969

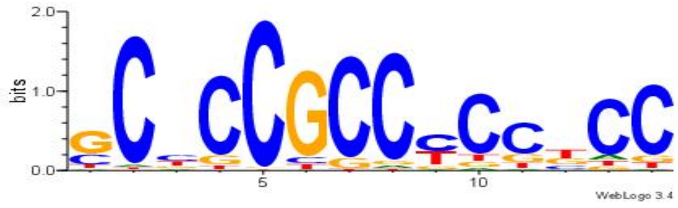
Alignment:

GCVCCGCCMCCYCC
GCCCCGCC------

Original motif Consensus sequence: GGMGGRGGCGGVGC



Reverse complement motif Consensus sequence: GCVCCGCCMCCYC



Dataset #:	3
Motif ID:	27
Motif name:	Klf4
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:	0.0349983

Alignment:

DGGGYGKGGC
--GGCGGGGC

Original motif Consensus sequence: DGGGYGKGGC

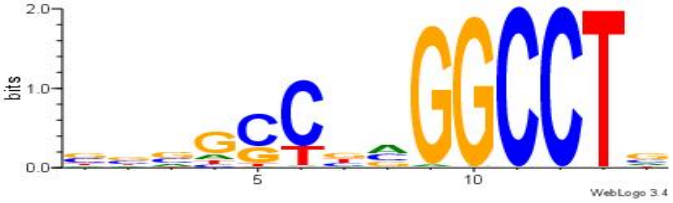
Reverse complement motif Consensus sequence: GCCYCMCCCD

Dataset #:	3
Motif ID:	22
Motif name:	Zfx
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:	0.0708224

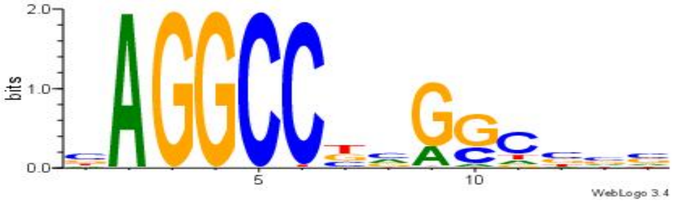
Alignment:

```
VAGGCCBBGGCVBB
---GCCCCGCC---
```

Original motif Consensus sequence: BBVGCCBVGGCCTV



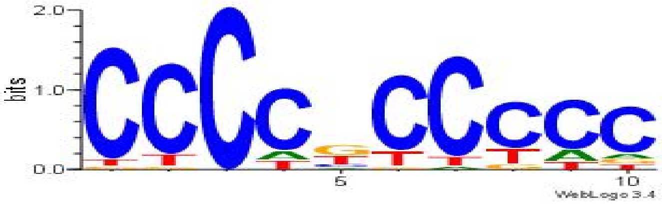
Reverse complement motif Consensus sequence: VAGGCCBBGGCV



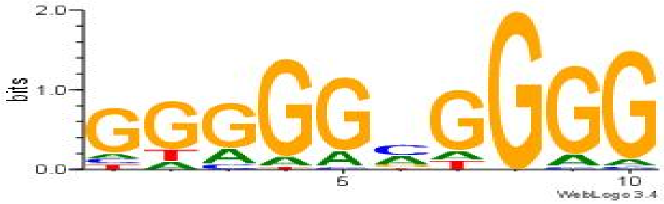
Significant Motifs - Global and Local Matching (Highest to Lowest)

Dataset #: 3 Motif ID: 24 Motif name: SP1

Original motif Consensus sequence: CCCCKCCCCC



Reverse complement motif Consensus sequence: GGGGGYGGGG



Best Matches for Significant Motif ID 24 (Highest to Lowest)

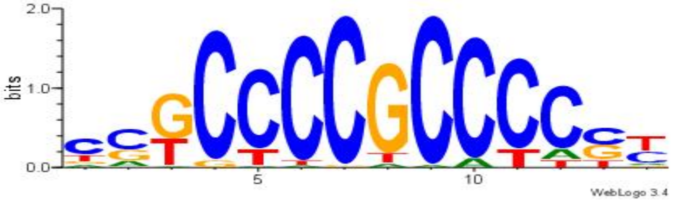
Dataset #:	2
Motif ID:	7
Motif name:	Motif 7
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	10
Similarity score:	0.00451594

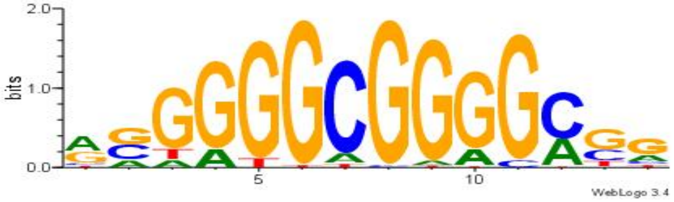
Alignment:

```
MSGGGGCGGGGYSG
-GGGGGYGGGG---
```

Original motif Consensus sequence: CSKCCCCGCCCCSY

Reverse complement motif Consensus sequence: MSGGGGCGGGGY





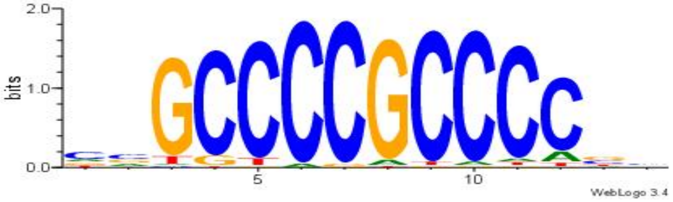
Dataset #:	4
Motif ID:	36
Motif name:	csGCCCCGCCCCsc
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	10
Similarity score:	0.00965796

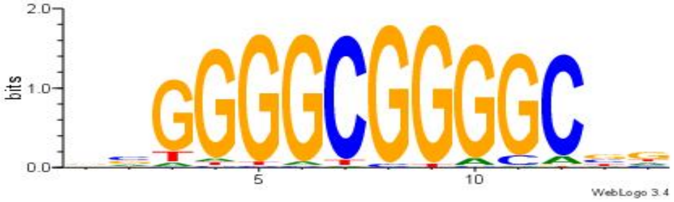
Alignment:

```
BBGGGGCGGGGCVD
-GGGGGYGGGG---
```

Original motif Consensus sequence: HVGCCCCGCCCCBB

Reverse complement motif Consensus sequence: BBGGGGCGGGGC





Dataset #:	4
Motif ID:	38

Motif name: cccGCCCCGCCCCsb

Matching format of first motif: Original Motif

Matching format of second motif: Original Motif

Direction: Forward

Position number: 5

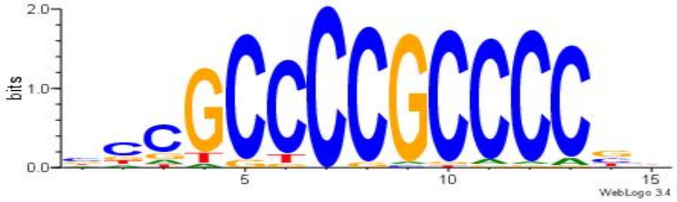
Number of overlap: 10

Similarity score: 0.0127292

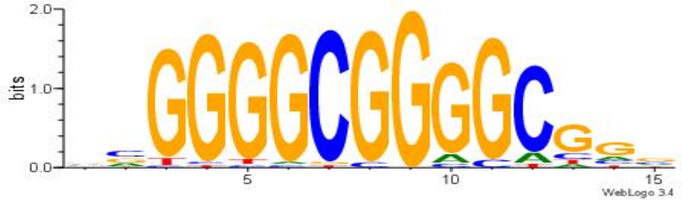
Alignment:

```
BCCGCCCCGCCCCBB
----CCCCKCCCCC-
```

Original motif Consensus sequence: BCCGCCCCGCCCCBB



Reverse complement motif Consensus sequence: BBGGGGCGGGGCGGB



Dataset #: 5

Motif ID: 50

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: 10

Similarity score: 0.0174405

Alignment:

```
GGMGGRGGCGGVGC
---GGGGGYGGGG-
```

Original motif Consensus sequence: GGMGGRGGCGGVGC

Reverse complement motif Consensus sequence: GCVCCGCCMCCY

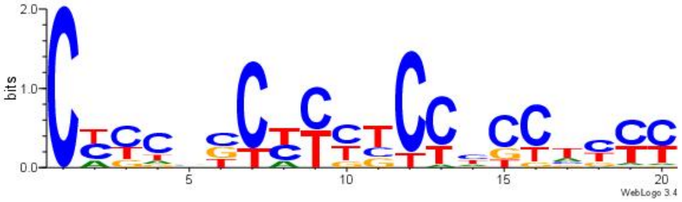
Dataset #:	5
Motif ID:	54
Motif name:	TFM12
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	7
Number of overlap:	10
Similarity score:	0.0301548

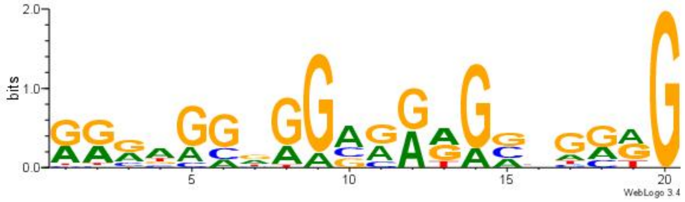
Alignment:

```
CYYCBBCYYYTCCHCCTYYY
------CCCCKCCCCC----
```

Original motif Consensus sequence: CYYCBBCYYYTCCHCCTYYY

Reverse complement motif Consensus sequence: KKKAGGDGGAKKMGBBGKMG

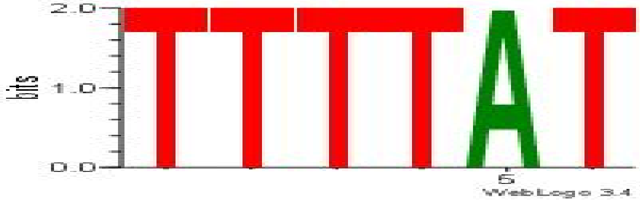




Dataset #: 2 **Motif ID: 21** **Motif name: Motif 21**

Original motif Consensus sequence: ATAAAA

Reverse complement motif Consensus sequence: TTTTAT



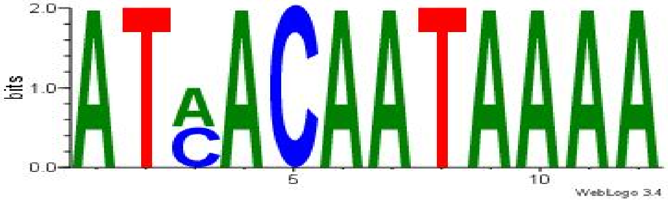
Best Matches for Significant Motif ID 21 (Highest to Lowest)

Dataset #:	2
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:	1
Number of overlap:	6
Similarity score:	0

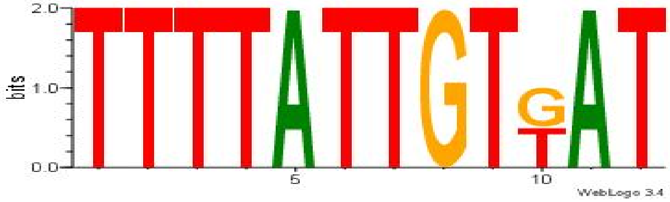
Alignment:

```
TTTTATTGTYAT
TTTTAT------
```

Original motif Consensus sequence: ATMACAATAAAA



Reverse complement motif Consensus sequence: TTTTATTGTYAT

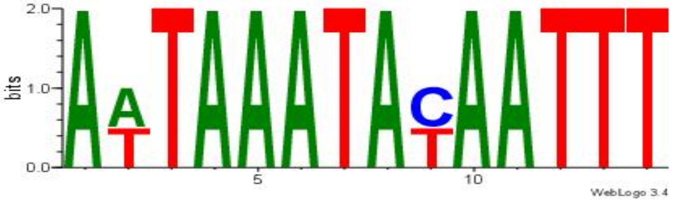


Dataset #:	2
Motif ID:	5
Motif name:	Motif 5
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	6
Number of overlap:	6
Similarity score:	0.0208333

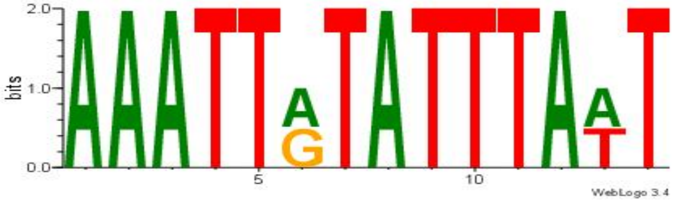
Alignment:

```
AAATTKTATTTAWT
---TTTTAT-----
```

Original motif Consensus sequence: AWTAAATAYAATTT



Reverse complement motif Consensus sequence: AAATTKTATTTAWT

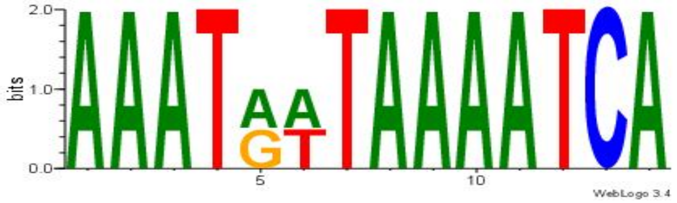


Dataset #: 2
Motif ID: 8
Motif name: Motif 8
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 4
Number of overlap: 6
Similarity score: 0.0208333

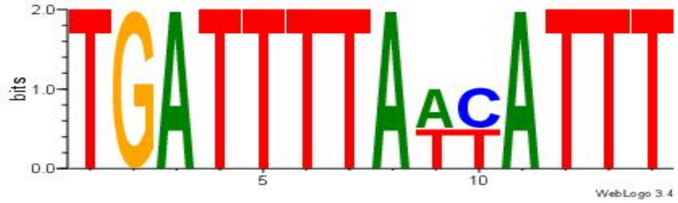
Alignment:

```
AAATRWTAAAATCA
-----ATAAAA---
```

Original motif Consensus sequence: AAATRWTAAAATCA



Reverse complement motif Consensus sequence: TGATTTTAWKATT



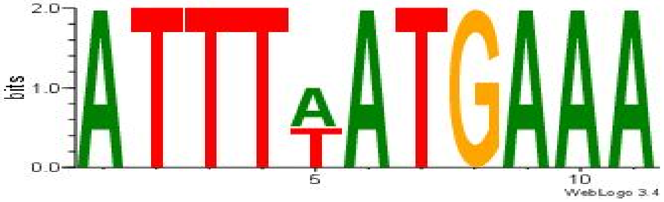
Dataset #: 2
Motif ID: 11
Motif name: Motif 11
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Backward
Position number: 2
Number of overlap: 6

Similarity score: 0.0208333

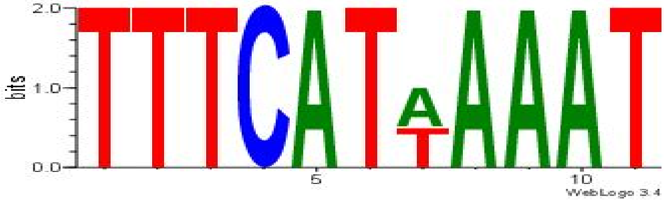
Alignment:

```
ATTTWATGAAA
----TTTTAT-
```

Original motif Consensus sequence: ATTTWATGAAA



Reverse complement motif Consensus sequence: TTTCATWAAAT



Dataset #: 2

Motif ID: 10

Motif name: Motif 10

Matching format of first motif: Reverse Complement

Matching format of second motif: Original Motif

Direction: Backward

Position number: 1

Number of overlap: 6

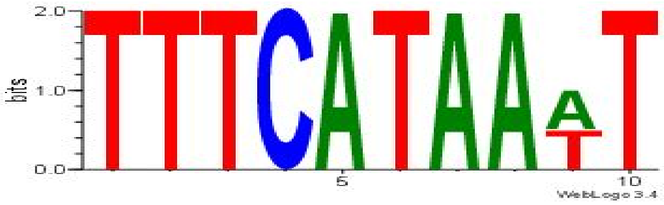
Similarity score: 0.0416667

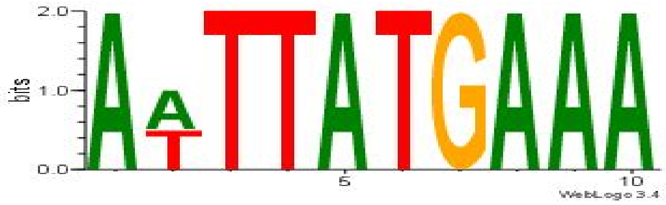
Alignment:

```
TTTCATAAWT
----TTTTAT
```

Original motif Consensus sequence: TTTCATAAWT

Reverse complement motif Consensus sequence: AWTTATGAAA

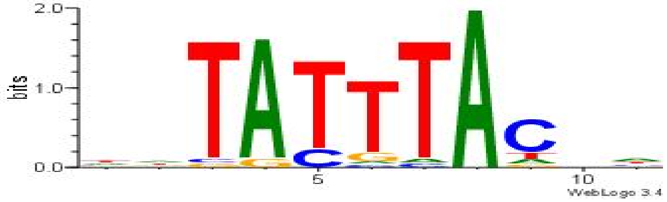




Dataset #: 4 **Motif ID: 45** **Motif name: wbgTAAATAww**

Original motif Consensus sequence: DBGTAAATAHD

Reverse complement motif Consensus sequence: DHTATTTACBD



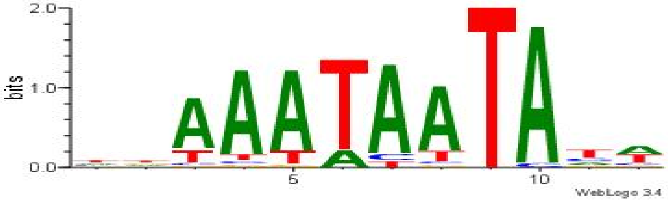
Best Matches for Significant Motif ID 45 (Highest to Lowest)

Dataset #:	4
Motif ID:	37
Motif name:	tkAAATAATAtw
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:	0.0162338

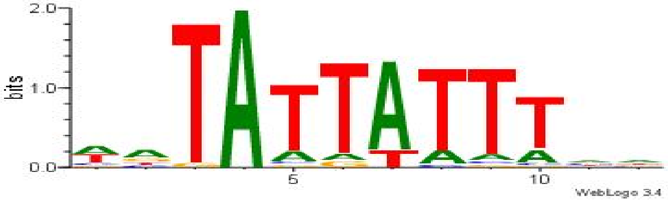
Alignment:

```
HDAAATAATAHW
-DBGTAAATAHD
```

Original motif   Consensus sequence: HDAAATAATAHW



Reverse complement motif   Consensus sequence: WHTATTATTTDH

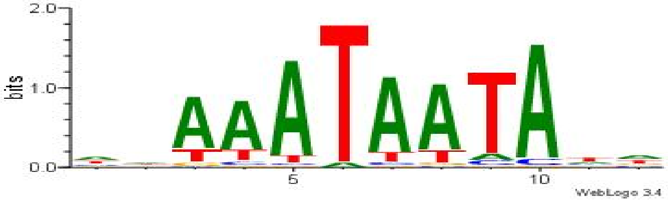


Dataset #:	4
Motif ID:	41
Motif name:	wwAAATAATAtw
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	11
Similarity score:	0.0164863

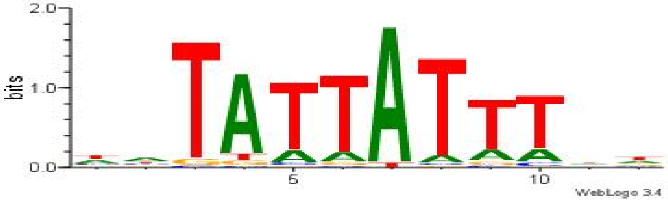
Alignment:

```
DDTATTATTTDH
DHTATTTACBD-
```

Original motif   Consensus sequence: HDAAATAATADD



Reverse complement motif   Consensus sequence: DDTATTATTTDH

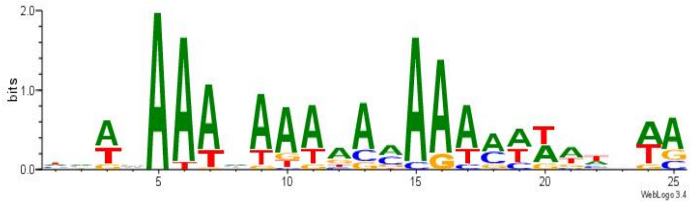


Dataset #: 5
Motif ID: 56
Motif name: TFM11
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 15
Number of overlap: 11
Similarity score: 0.0192768

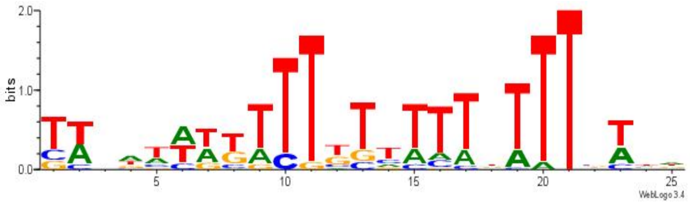
Alignment:

```
TWVHWWWYTTTYTTTTTHTTTVWBH
--------------DHTATTTACBD
```

Original motif Consensus sequence:
HDWVAAAHAAAAAMAAAMWWWHBWA



Reverse complement motif Consensus sequence:
TWVHWWWYTTTYTTTTTHTTTVWBH



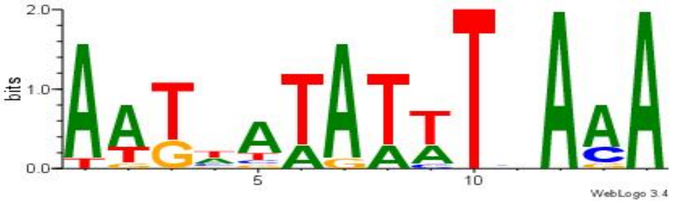
Dataset #: 2
Motif ID: 9
Motif name: Motif 9
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Backward
Position number: 4

Number of overlap: 11
Similarity score: 0.0250541

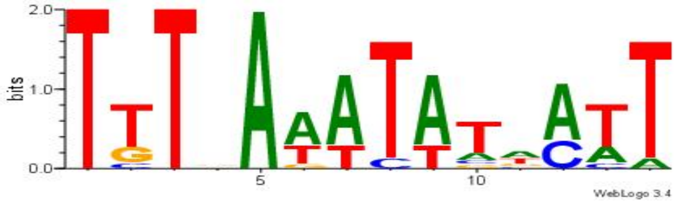
Alignment:

```
AATHATATWTHAAA
DHTATTTACBD---
```

Original motif Consensus sequence: AATHATATWTHAAA



Reverse complement motif Consensus sequence: TTTDAWATATHAT



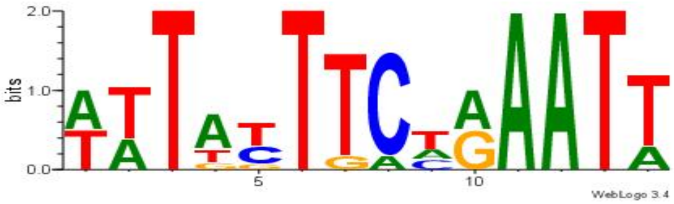
Dataset #: 2
Motif ID: 6
Motif name: Motif 6
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 1
Number of overlap: 11
Similarity score: 0.027895

Alignment:

```
AATTYDGAARTAWW
---DBGTAAATAHD
```

Original motif Consensus sequence: AATTYDGAARTAWW

Reverse complement motif Consensus sequence: WWTAKTTCDKAAT



Dataset #: 3 Motif ID: 29 Motif name: HIF1AARNT

Original motif Consensus sequence: VBACGTGV

Reverse complement motif Consensus sequence: VCACGTBV

Best Matches for Significant Motif ID 29 (Highest to Lowest)

Dataset #:	3
Motif ID:	33
Motif name:	Mycn
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:	0.0123101

Alignment:

```
GCCACGTGSD
-VBACGTGV-
```

Original motif Consensus sequence: HSCACGTGGC

Reverse complement motif Consensus sequence: GCCACGTGSD

Dataset #:	3
Motif ID:	34
Motif name:	Myc
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:	0.0144491

Alignment:

```
DCCACGTGCV
-VBACGTGV-
```

Original motif Consensus sequence: VGCACGTGGH

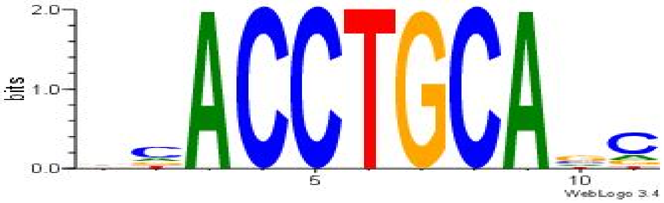
Reverse complement motif Consensus sequence: DCCACGTGCV

Dataset #: 4
Motif ID: 40
Motif name: kcACCTGCAgc
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: 0.0295473

Alignment:

```
GBTGCAGGTGB
---VCACGTBV
```

Original motif Consensus sequence: BCACCTGCABC



Reverse complement motif Consensus sequence: GBTGCAGGTGB

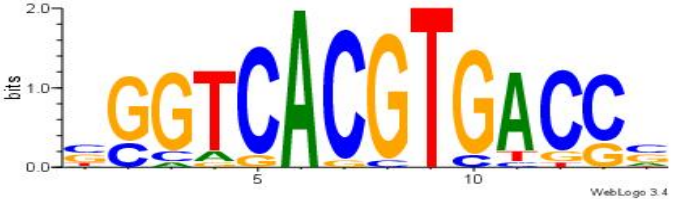
Dataset #: 4
Motif ID: 42
Motif name: sSGTCACGTGACSs
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 4
Number of overlap: 8

Similarity score:	0.0314837

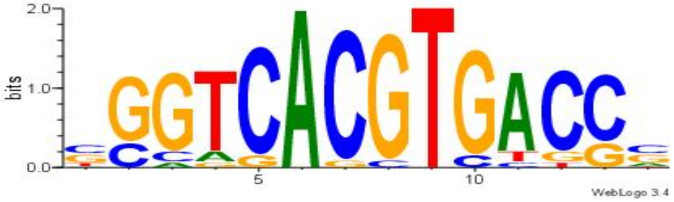
Alignment:

```
SGGTCACGTGACCS
---VCACGTBV---
```

Original motif Consensus sequence: SGGTCACGTGACCS



Reverse complement motif Consensus sequence: SGGTCACGTGACC



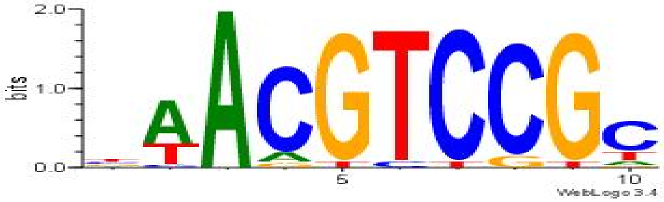
Dataset #:	3
Motif ID:	26
Motif name:	MIZF
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	8
Similarity score:	0.0377204

Alignment:

```
GCGGACGTTV
--VCACGTBV
```

Original motif Consensus sequence: BAACGTCCGC

Reverse complement motif Consensus sequence: GCGGACGTTV



Dataset #: 3 Motif ID: 32 Motif name: ArntAhr

Original motif Consensus sequence: YGCGTG

Reverse complement motif Consensus sequence: CACGCM

Best Matches for Significant Motif ID 32 (Highest to Lowest)

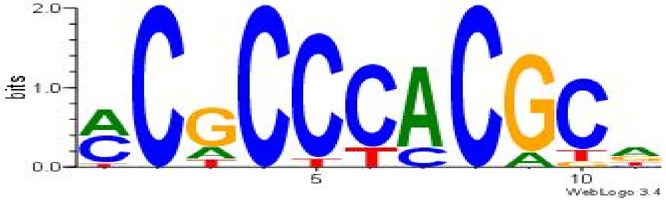
Dataset #:	3
Motif ID:	23
Motif name:	Egr1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	6
Similarity score:	0

Alignment:

```
HGCGTGGGCGK
YGCGTG-----
```

Original motif Consensus sequence: HGCGTGGGCGK

Reverse complement motif Consensus sequence: YCGCCCACGCH



Dataset #:	3
Motif ID:	29
Motif name:	HIF1AARNT
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	6
Similarity score:	0.0112447

Alignment:

```
VBACGTGV
-YGCGTG-
```

Original motif Consensus sequence: VBACGTGV

Reverse complement motif Consensus sequence: VCACGTBV

Dataset #: 3
Motif ID: 33
Motif name: Mycn
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 3
Number of overlap: 6
Similarity score: 0.0377949

Alignment:

```
GCCACGTGSD
--YGCGTG--
```

Original motif   Consensus sequence: HSCACGTGGC

Reverse complement motif   Consensus sequence: GCCACGTGSD

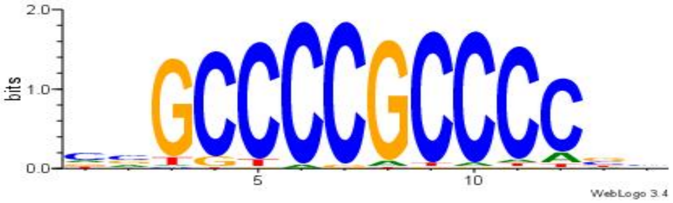
Dataset #: 4
Motif ID: 36
Motif name: csGCCCCGCCCCsc
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 5
Number of overlap: 6

Similarity score: 0.0396403

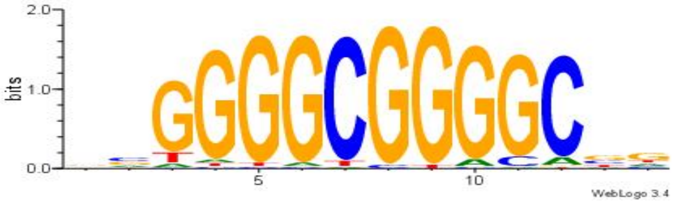
Alignment:

```
HVGCCCCGCCCCBB
----CACGCM----
```

Original motif Consensus sequence: HVGCCCCGCCCCBB



Reverse complement motif Consensus sequence: BBGGGGCGGGGC



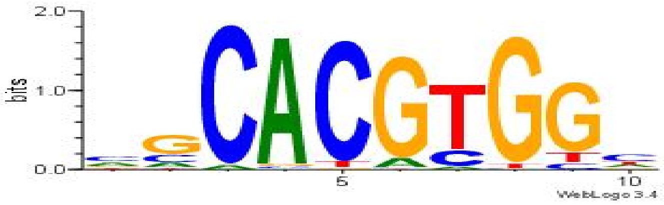
Dataset #: 3
Motif ID: 34
Motif name: Myc
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 3
Number of overlap: 6
Similarity score: 0.0399214

Alignment:

```
DCCACGTGCV
--YGCGTG--
```

Original motif Consensus sequence: VGCACGTGGH

Reverse complement motif Consensus sequence: DCCACGTGCV



Best Matches for Each Motif (Highest to Lowest)

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

Original motif Consensus sequence: GGCGGGGC

Reverse complement motif Consensus sequence: GCCCCGCC

Best Matches for Motif ID 1 (Highest to Lowest)

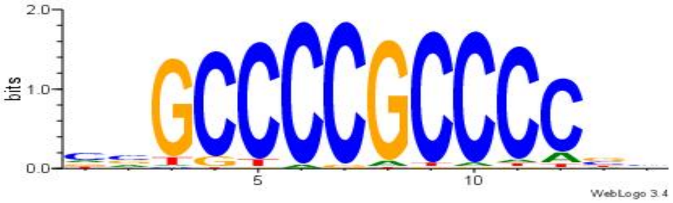
Dataset #:	4
Motif ID:	36
Motif name:	csGCCCCGCCCCsc
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	8

Similarity score: 0

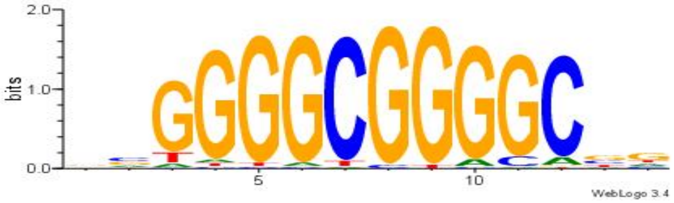
Alignment:

```
BBGGGGCGGGGCVD
----GGCGGGGC--
```

Original motif Consensus sequence: HVGCCCCGCCCCBB



Reverse complement motif Consensus sequence: BBGGGGCGGGGC



Dataset #: 4

Motif ID: 38

Motif name: cccGCCCCGCCCCsb

Matching format of first motif: Original Motif

Matching format of second motif: Reverse Complement

Direction: Forward

Position number: 5

Number of overlap: 8

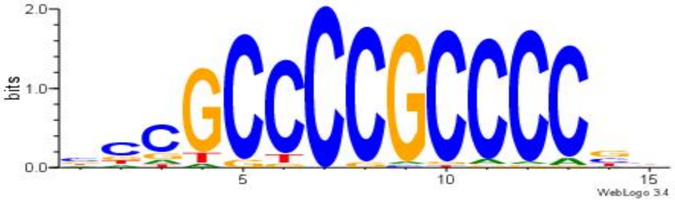
Similarity score: 0.00250079

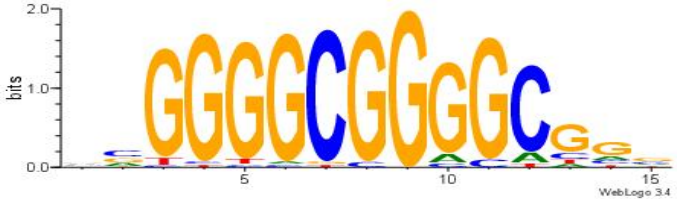
Alignment:

```
BBGGGGCGGGGCGGB
----GGCGGGGC---
```

Original motif Consensus sequence: BCCGCCCCGCCCCBB

Reverse complement motif Consensus sequence: BBGGGGCGGGGCGGB



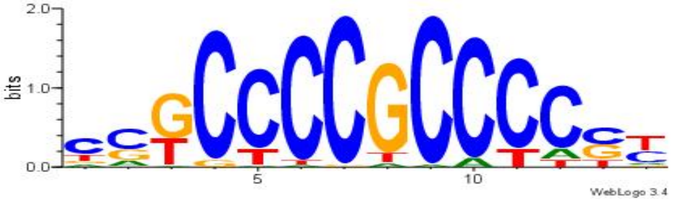


Dataset #:	2
Motif ID:	7
Motif name:	Motif 7
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	5
Number of overlap:	8
Similarity score:	0.0149958

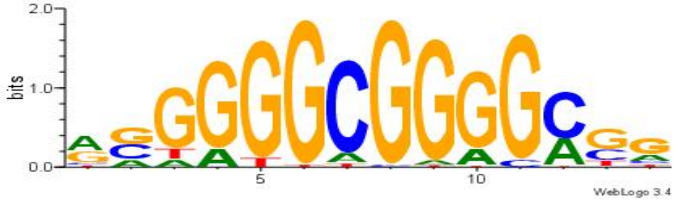
Alignment:

```
MSGGGGCGGGGYSG
----GGCGGGGC--
```

Original motif Consensus sequence: CSKCCCCGCCCCSY



Reverse complement motif Consensus sequence: MSGGGGCGGGGY



Dataset #:	5
Motif ID:	50

Motif name:	TFF11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	7
Number of overlap:	8
Similarity score:	0.0348969

Alignment:

```
GCVCCGCCMCCYCC
GCCCCGCC------
```

Original motif Consensus sequence: GGMGGRGGCGGVGC

Reverse complement motif Consensus sequence: GCVCCGCCMCCYC

Dataset #:	3
Motif ID:	27
Motif name:	Klf4
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:	0.0349983

Alignment:

```
DGGGYGKGGC
--GGCGGGGC
```

Original motif Consensus sequence: DGGGYGKGGC

Reverse complement motif Consensus sequence: GCCYCMCCCD

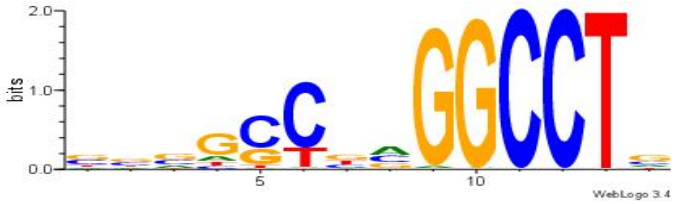
Dataset #:	3
Motif ID:	22
Motif name:	Zfx
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	8
Similarity score:	0.0708224

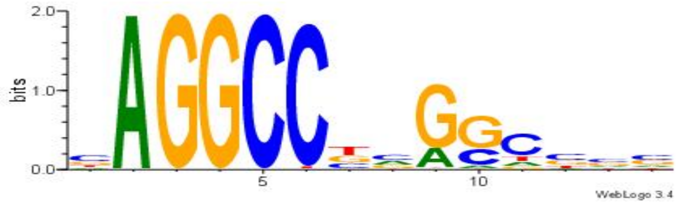
Alignment:

```
VAGGCCBBGGCVBB
---GCCCCGCC---
```

Original motif Consensus sequence: BBVGCCBVGGCCTV

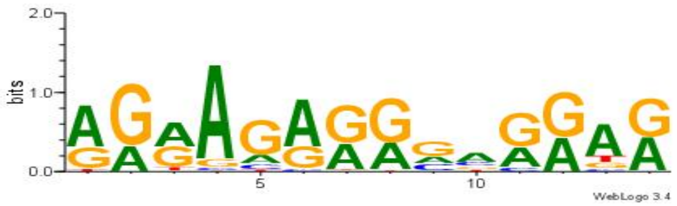
Reverse complement motif Consensus sequence: VAGGCCBBGGCV



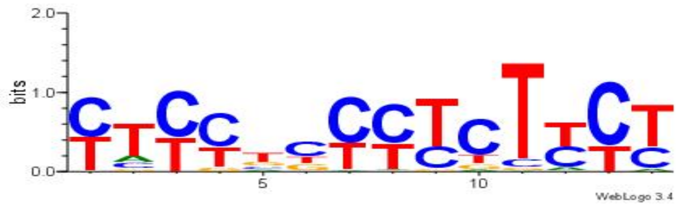


Dataset #: 2 Motif ID: 2 Motif name: Motif 2

Original motif Consensus sequence: RGRAGARRGARRAR



Reverse complement motif Consensus sequence: MTMMTCMMTCTK



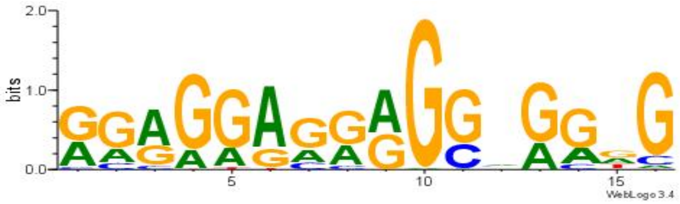
Best Matches for Motif ID 2 (Highest to Lowest)

Dataset #:	5
Motif ID:	51
Motif name:	TFM2
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:	0.00948131

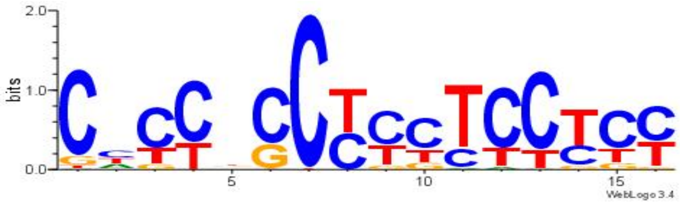
Alignment:

```
RGRGGAGRRGGHGGDG
--RGRAGARRGARRAR
```

Original motif Consensus sequence: RGRGGAGRRGGHGGDG



Reverse complement motif Consensus sequence: CHCCBCCKMCTCCKCM

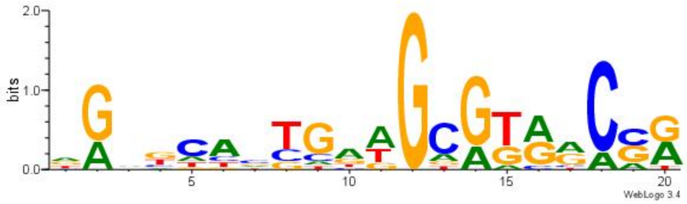


Dataset #:	3
Motif ID:	31
Motif name:	Pax5
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	7
Number of overlap:	14
Similarity score:	0.047364

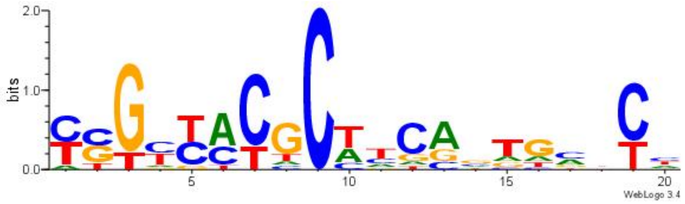
Alignment:

```
MSGKKRCGCWDCABTGBBCD
------MTMMTCMMTCTKCK
```

Original motif Consensus sequence: DGVBCABTGDWGCGKRRCSR



Reverse complement motif Consensus sequence: MSGKKRCGCWDCABTGBBCD

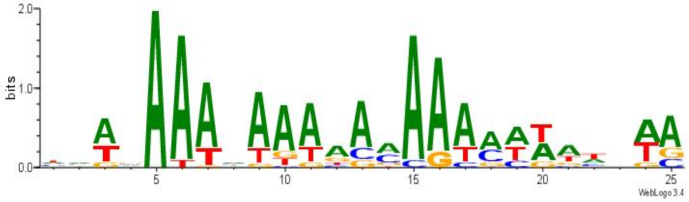


Dataset #: 5
Motif ID: 56
Motif name: TFM11
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 3
Number of overlap: 14
Similarity score: 0.0541717

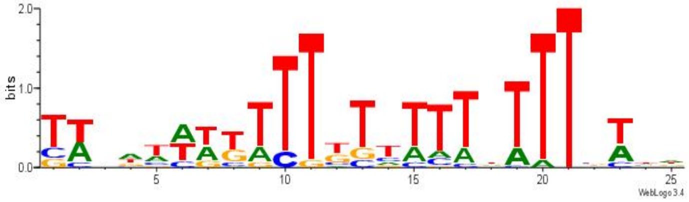
Alignment:

```
HDWVAAAHAAAAAMAAAMWWWHBWA
---------RGRAGARRGARRAR--
```

Original motif Consensus sequence:
HDWVAAAHAAAAAMAAAMWWWHBWA



Reverse complement motif Consensus sequence:
TWVHWWWYTTTYTTTTTHTTTVWBH



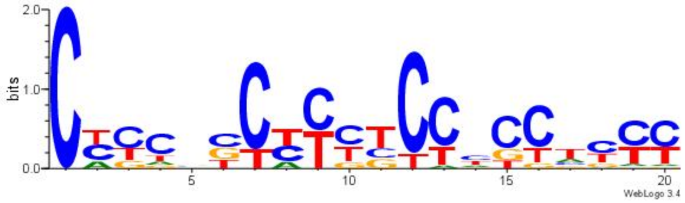
Dataset #: 5
Motif ID: 54
Motif name: TFM12
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 7

Number of overlap: 14
Similarity score: 0.0545069

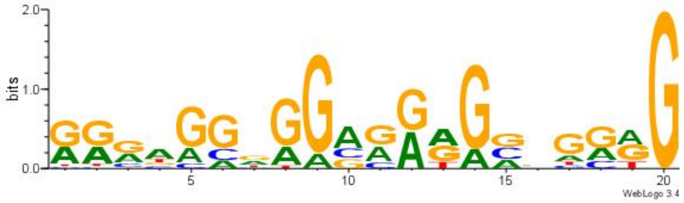
Alignment:

```
CYYCBBCYYYTCCHCCTYYY
------MTMMTCMMTCTKCK
```

Original motif Consensus sequence: CYYCBBCYYYTCCHCCTYYY



Reverse complement motif Consensus sequence: KKKAGGDGGAKKMGBBGKMG

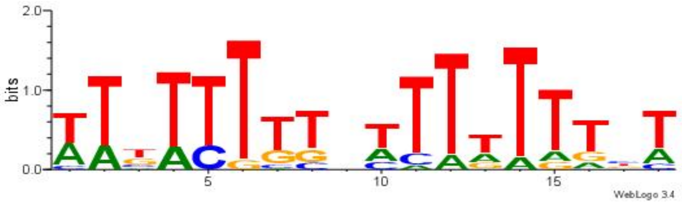


Dataset #: 5
Motif ID: 52
Motif name: TFM1
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 4
Number of overlap: 14
Similarity score: 0.0558935

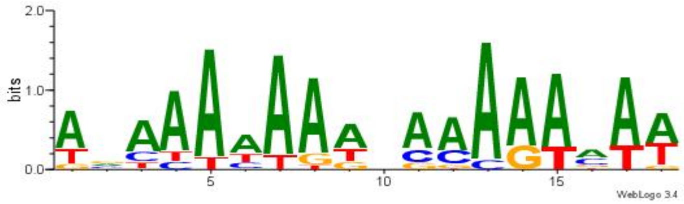
Alignment:

```
ABAAAAAAWHAAAAARAW
-RGRAGARRGARRAR---
```

Original motif Consensus sequence: WTKTTTTTHWTTTTTTBT

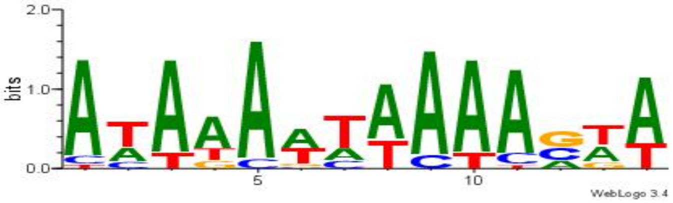


Reverse complement motif Consensus sequence: ABAAAAAAWHAAAAARAW

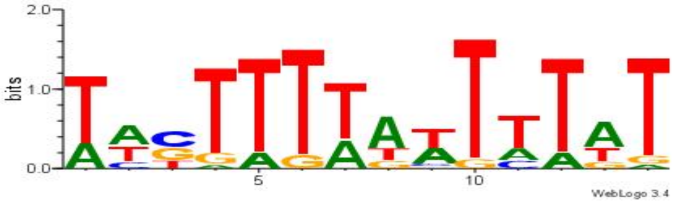


Dataset #: 2 **Motif ID: 3** **Motif name: Motif 3**

Original motif Consensus sequence: AWAAAWTWAAASWA



Reverse complement motif Consensus sequence: TWSTTTWAWTTTW



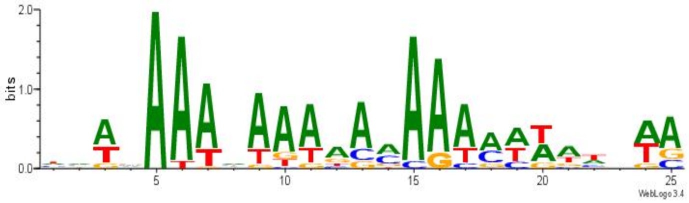
Best Matches for Motif ID 3 (Highest to Lowest)

Dataset #:	5
Motif ID:	56
Motif name:	TFM11
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:	0.0137914

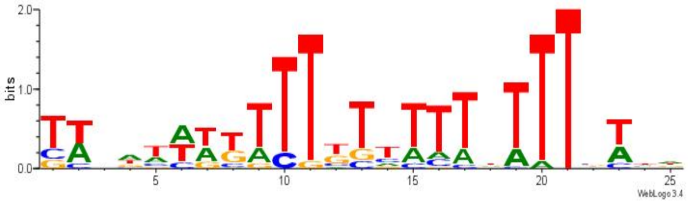
Alignment:

```
HDWVAAAHAAAAAMAAAMWWWHBWA
------AWAAAWTWAAASWA-----
```

Original motif Consensus sequence:
HDWVAAAHAAAAAMAAAMWWWHBWA



Reverse complement motif Consensus sequence:
TWVHWWWYTTTYTTTTTHTTTVWBH



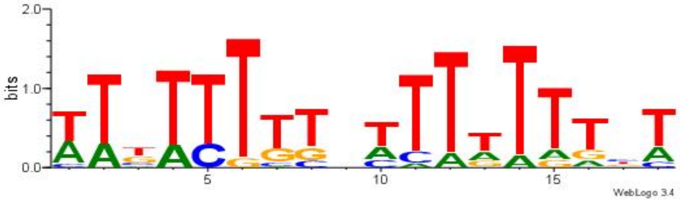
Dataset #:	5
Motif ID:	52
Motif name:	TFM1
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	14
Similarity score:	0.0162962

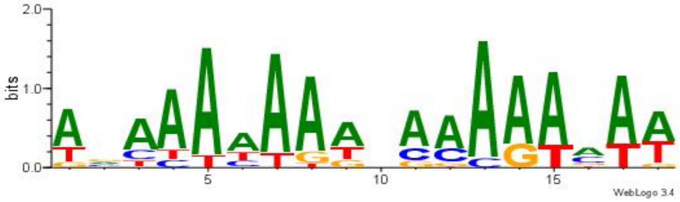
Alignment:

```
ABAAAAAAWHAAAAARAW
----AWAAAWTWAAASWA
```

Original motif Consensus sequence: WTKTTTTTHWTTTTTTBT

Reverse complement motif Consensus sequence:
ABAAAAAAWHAAAAARAW





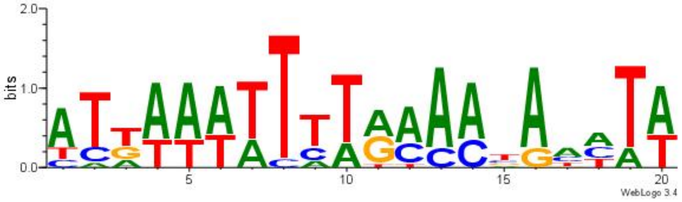
Dataset #:	5
Motif ID:	55
Motif name:	TFM13
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	14
Similarity score:	0.037679

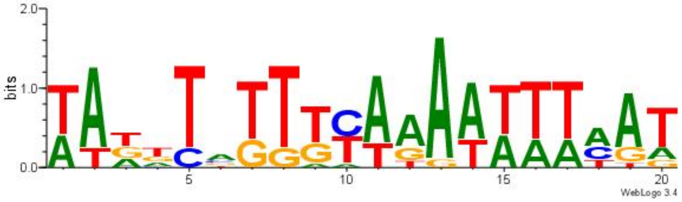
Alignment:

```
ATKAAWTTTTRMAABAHHTW
--AWAAAWTWAAASWA----
```

Original motif Consensus sequence: ATKAAWTTTTRMAABAHHTW

Reverse complement motif Consensus sequence: WAHHTVTTYKAAAAWTTRAT



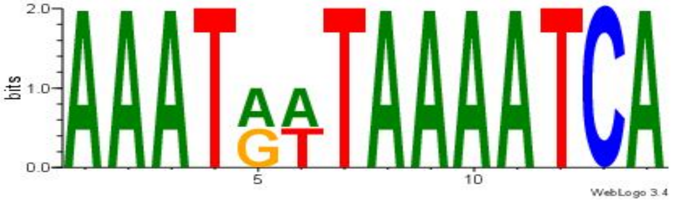


Dataset #:	2

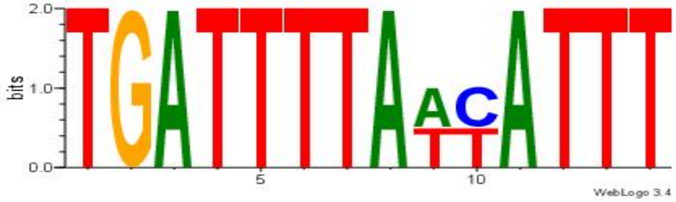
Motif ID: 8
Motif name: Motif 8
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 1
Number of overlap: 14
Similarity score: 0.0423952

Alignment:
```
TGATTTTAWKATTT
TWSTTTWAWTTTWT
```

Original motif Consensus sequence: AAATRWTAAAATCA



Reverse complement motif Consensus sequence: TGATTTTAWKATT

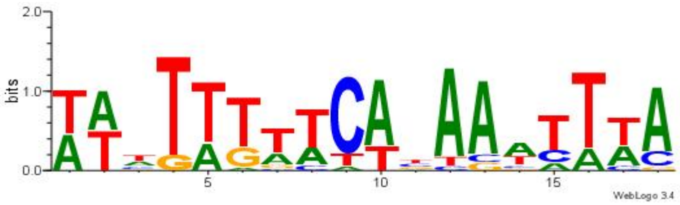


Dataset #: 5
Motif ID: 53
Motif name: TFM3
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 5
Number of overlap: 14
Similarity score: 0.0456419

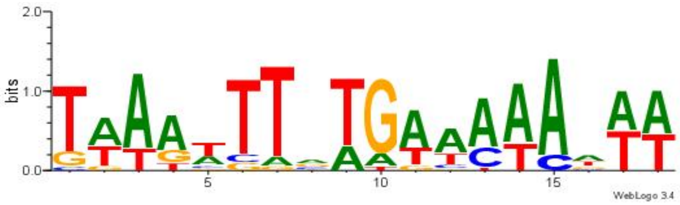
Alignment:

```
TWAAWTTVTGAAAAAHWW
----AWAAAAWTWAAASWA
```

Original motif   Consensus sequence: WWHTTTTTCABAAWTTWA

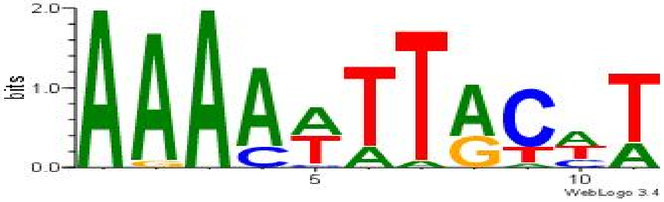


Reverse complement motif   Consensus sequence: TWAAWTTVTGAAAAAHWW

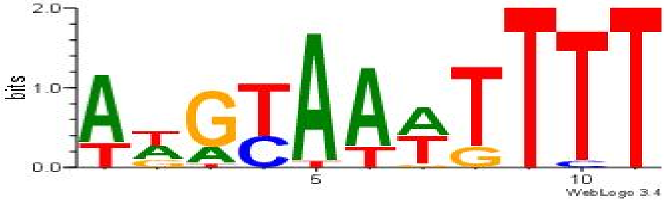


Dataset #: 2   Motif ID: 4   Motif name: Motif 4

Original motif   Consensus sequence: AAAAWTTRCWT



Reverse complement motif   Consensus sequence: AWGKAAWTTTT



Best Matches for Motif ID 4 (Highest to Lowest)

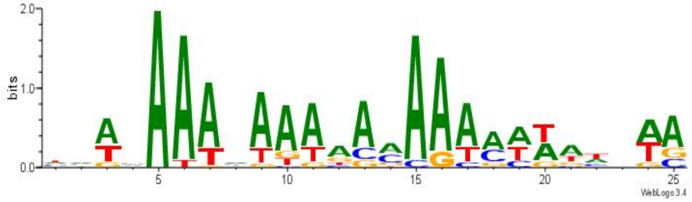
Dataset #:	5
Motif ID:	56
Motif name:	TFM11
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward

Position number:	14
Number of overlap:	11
Similarity score:	0.0718583

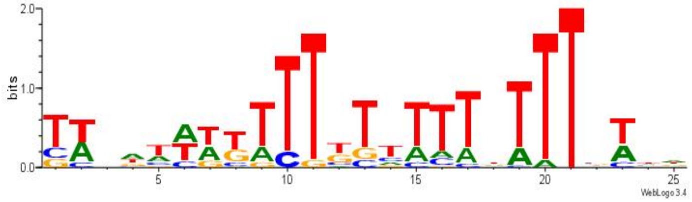
Alignment:

```
HDWVAAAHAAAAAMAAAMWWWHBWA
-------------AAAAWTTRCWT-
```

Original motif Consensus sequence:
HDWVAAAHAAAAAMAAAMWWWHBWA



Reverse complement motif Consensus sequence:
TWVHWWWYTTTYTTTTTHTTTVWBH

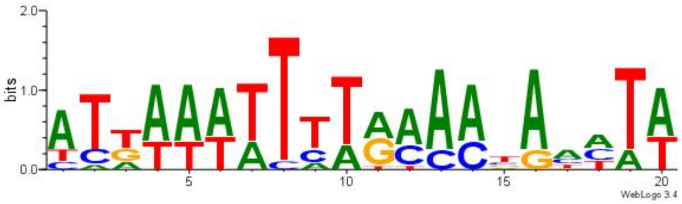


Dataset #:	5
Motif ID:	55
Motif name:	TFM13
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	10
Number of overlap:	11
Similarity score:	0.0727073

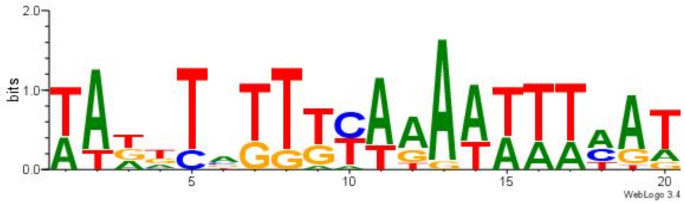
Alignment:

```
ATKAAWTTTTRMAABAHHTW
AWGKAAWTTTT---------
```

Original motif Consensus sequence: ATKAAWTTTTRMAABAHHTW



Reverse complement motif Consensus sequence: WAHHTVTTYKAAAAWTTRAT

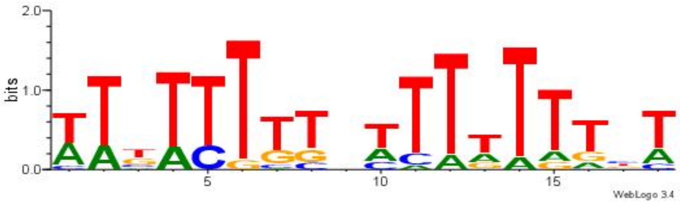


Dataset #:	5
Motif ID:	52
Motif name:	TFM1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	5
Number of overlap:	11
Similarity score:	0.0748297

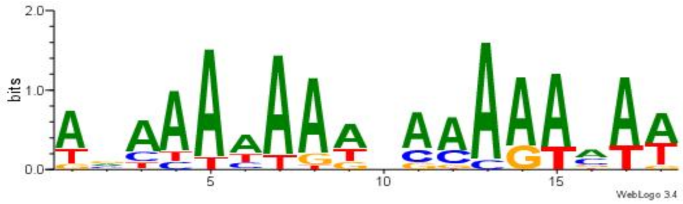
Alignment:

```
WTKTTTTTHWTTTTTTTBT
---AWGKAAWTTTT----
```

Original motif Consensus sequence: WTKTTTTTHWTTTTTTTBT



Reverse complement motif Consensus sequence: ABAAAAAAWHAAAAARAW

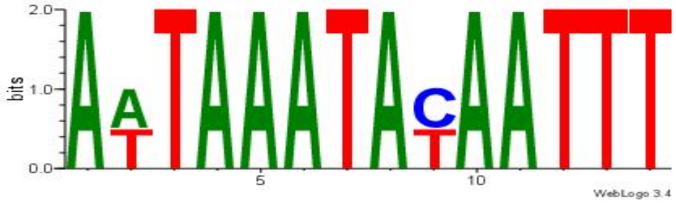


Dataset #: 2
Motif ID: 5
Motif name: Motif 5
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 4
Number of overlap: 11
Similarity score: 0.0786484

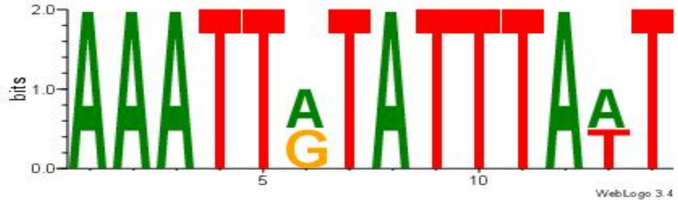
Alignment:

```
AAATTKTATTTAWT
AAAAWTTRCWT---
```

Original motif Consensus sequence: AWTAAATAYAATTT



Reverse complement motif Consensus sequence: AAATTKTATTTAW



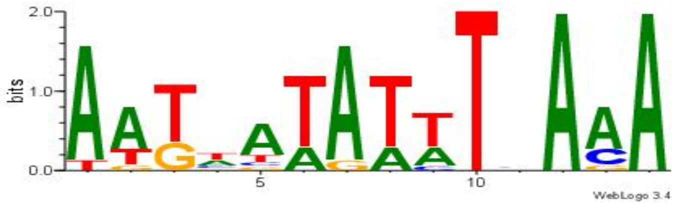
Dataset #: 2
Motif ID: 9
Motif name: Motif 9
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Backward
Position number: 4
Number of overlap: 11

Similarity score:	0.0820375

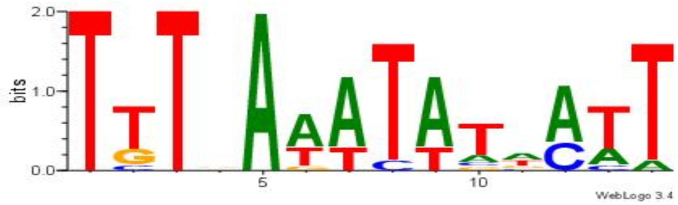
Alignment:

```
AATHATATWTHAAA
AWGKAAWTTTT---
```

Original motif Consensus sequence: AATHATATWTHAAA

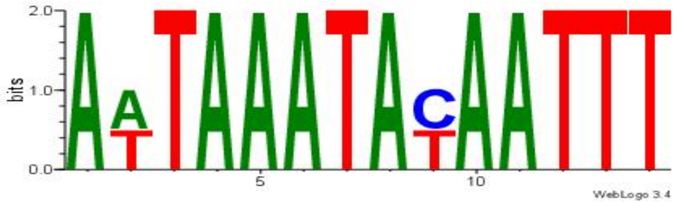


Reverse complement motif Consensus sequence: TTTDAWATATHAT

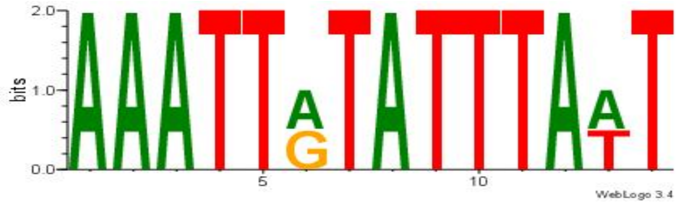


Dataset #: 2 Motif ID: 5 Motif name: Motif 5

Original motif Consensus sequence: AWTAAATAYAATTT



Reverse complement motif Consensus sequence: AAATTKTATTTAW



Best Matches for Motif ID 5 (Highest to Lowest)

Dataset #:	2
Motif ID:	3
Motif name:	Motif 3
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward

Position number: 1

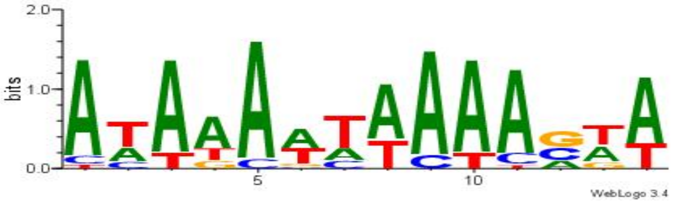
Number of overlap: 14

Similarity score: 0.101648

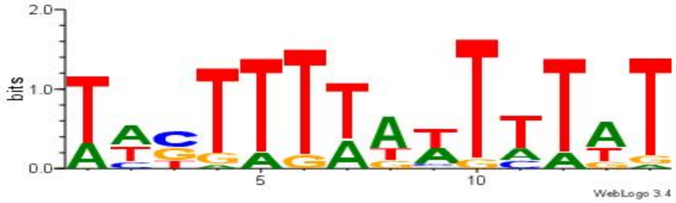
Alignment:

```
TWSTTTWAWTTTWT
AAATTKTATTTAWT
```

Original motif Consensus sequence: AWAAAWTWAAASWA



Reverse complement motif Consensus sequence: TWSTTTWAWTTTW



Dataset #: 2

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: 1

Number of overlap: 14

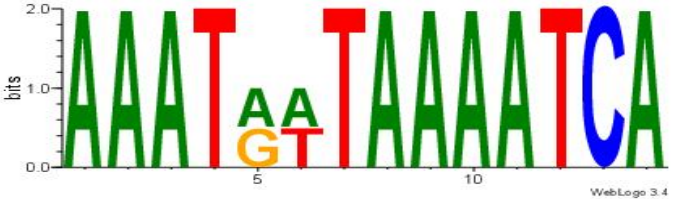
Similarity score: 0.107143

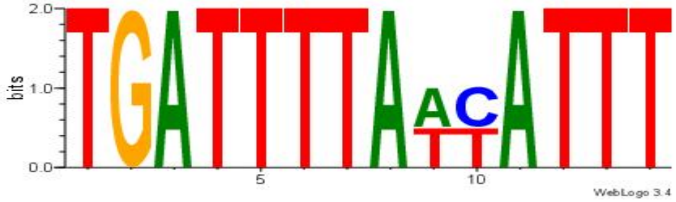
Alignment:

```
TGATTTTAWKATTT
AAATTKTATTTAWT
```

Original motif Consensus sequence: AAATRWTAAAATCA

Reverse complement motif Consensus sequence: TGATTTTAWKATT



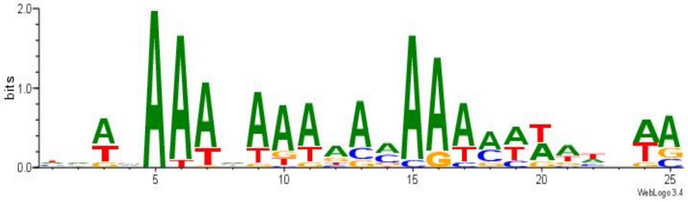


Dataset #:	5
Motif ID:	56
Motif name:	TFM11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	6
Number of overlap:	14
Similarity score:	0.109769

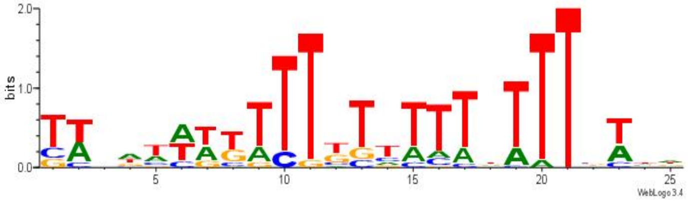
Alignment:

```
TWVHWWWYTTTYTTTTTHTTTVWBH
------AAATTKTATTTAWT-----
```

Original motif Consensus sequence:
HDWVAAAHAAAAAMAAAMWWWHBWA



Reverse complement motif Consensus sequence:
TWVHWWWYTTTYTTTTTHTTTVWBH



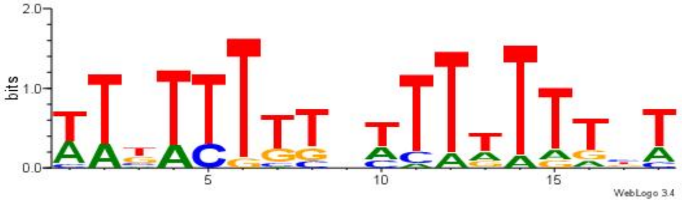
Dataset #:	5

Motif ID:	52
Motif name:	TFM1
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:	0.110348

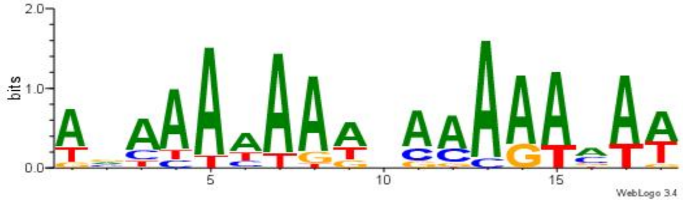
Alignment:

```
WTKTTTTTHWTTTTTTBT
-AAATTKTATTTAWT---
```

Original motif Consensus sequence: WTKTTTTTHWTTTTTTBT



Reverse complement motif Consensus sequence: ABAAAAAAWHAAAAARAW



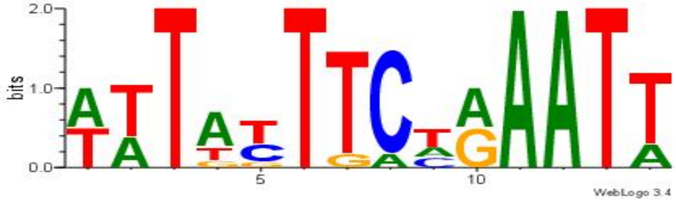
Dataset #:	2
Motif ID:	6
Motif name:	Motif 6
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	14

Similarity score:	0.111607

Alignment:
AATTYDGAARTAWW
AAATTKTATTTAWT

Original motif Consensus sequence: AATTYDGAARTAWW

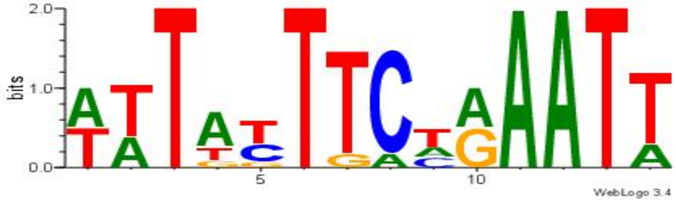
Reverse complement motif Consensus sequence: WWTAKTTCDKAAT



Dataset #: 2 Motif ID: 6 Motif name: Motif 6

Original motif Consensus sequence: AATTYDGAARTAWW

Reverse complement motif Consensus sequence: WWTAKTTCDKAAT



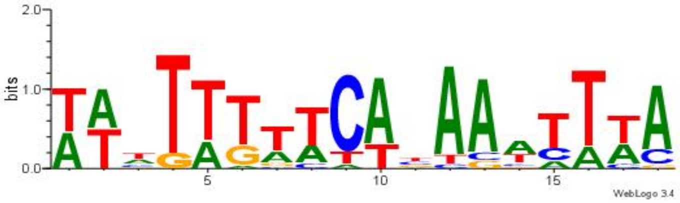
Best Matches for Motif ID 6 (Highest to Lowest)

Dataset #:	5
Motif ID:	53
Motif name:	TFM3
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward

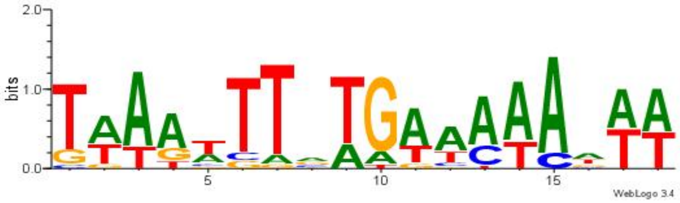
Position number: 4
Number of overlap: 14
Similarity score: 0.0325081

Alignment:
```
WWHTTTTTCABAAWTTWA
-WWTAKTTCDKAATT---
```

Original motif Consensus sequence: WWHTTTTTCABAAWTTWA



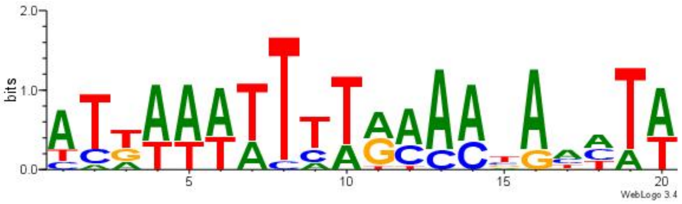
Reverse complement motif Consensus sequence: TWAAWTTVTGAAAAAHWW



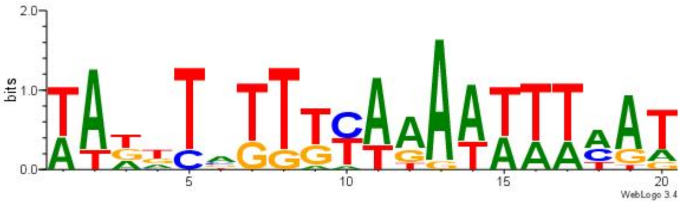
Dataset #: 5
Motif ID: 55
Motif name: TFM13
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 5
Number of overlap: 14
Similarity score: 0.0349702

Alignment:
```
ATKAAWTTTTRMAABAHHTW
----AATTYDGAARTAWW--
```

Original motif Consensus sequence: ATKAAWTTTTRMAABAHHTW



Reverse complement motif Consensus sequence: WAHHTVTTYKAAAAWTTRAT

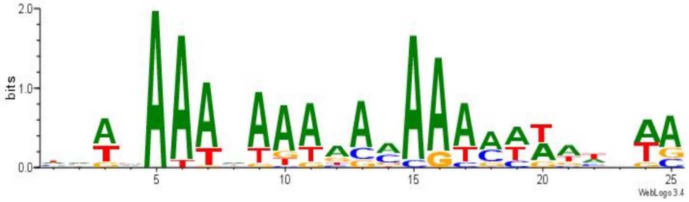


Dataset #:	5
Motif ID:	56
Motif name:	TFM11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	9
Number of overlap:	14
Similarity score:	0.0626838

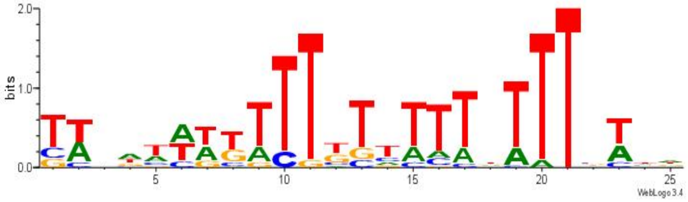
Alignment:

```
TWVHWWWYTTTYTTTTTHTTTVWBH
---WWTAKTTCDKAATT--------
```

Original motif Consensus sequence: HDWVAAAHAAAAAMAAAMWWWHBWA



Reverse complement motif Consensus sequence: TWVHWWWYTTTYTTTTTHTTTVWBH

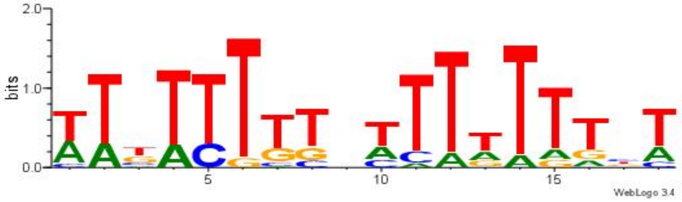


Dataset #:	5
Motif ID:	52
Motif name:	TFM1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	14
Similarity score:	0.0667239

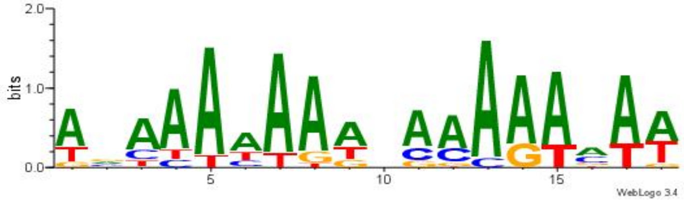
Alignment:

```
WTKTTTTTHWTTTTTTBT
-WWTAKTTCDKAATT---
```

Original motif Consensus sequence: WTKTTTTTHWTTTTTTBT



Reverse complement motif Consensus sequence: ABAAAAAAWHAAAAARAW



Dataset #:	2
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:	1

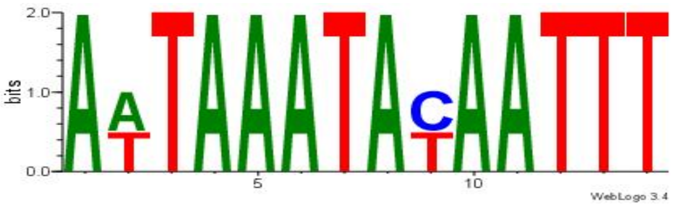
Number of overlap: 14

Similarity score: 0.0741071

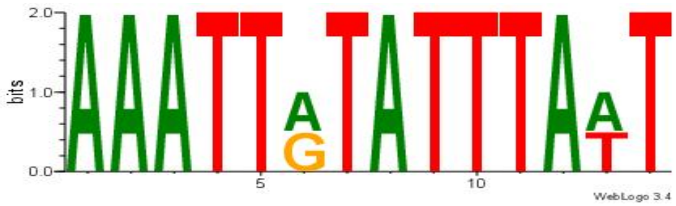
Alignment:

```
AWTAAATAYAATTT
WWTAKTTCDKAATT
```

Original motif Consensus sequence: AWTAAATAYAATTT

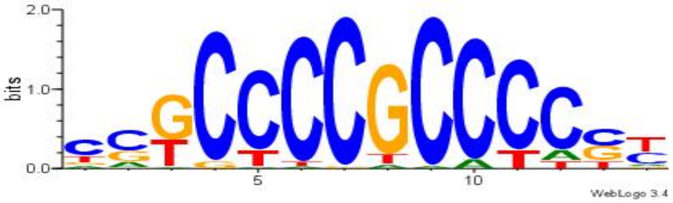


Reverse complement motif Consensus sequence: AAATTKTATTTAW

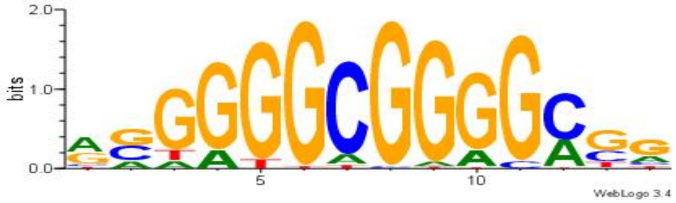


Dataset #: 2 Motif ID: 7 Motif name: Motif 7

Original motif Consensus sequence: CSKCCCCGCCCCSY



Reverse complement motif Consensus sequence: MSGGGGCGGGGY



Best Matches for Motif ID 7 (Highest to Lowest)

Dataset #: 4

Motif ID: 36

Motif name: csGCCCCGCCCCsc

Matching format of first motif: Original Motif

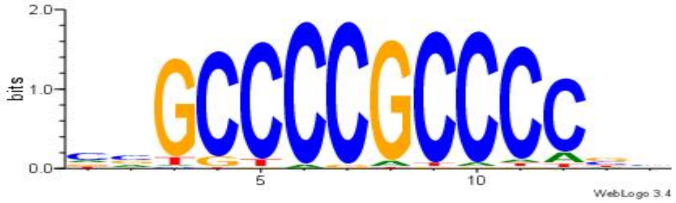
Matching format of second motif: Original Motif

Direction:	Forward
Position number:	1
Number of overlap:	14
Similarity score:	0

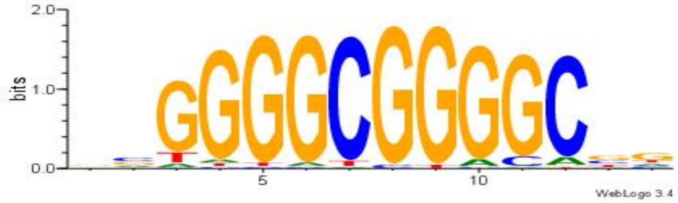
Alignment:

```
HVGCCCCGCCCCBB
CSKCCCCGCCCCSY
```

Original motif Consensus sequence: HVGCCCCGCCCCBB



Reverse complement motif Consensus sequence: BBGGGGCGGGGC

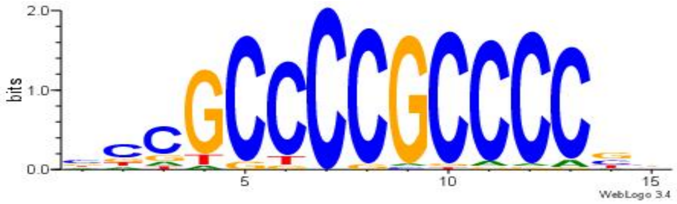


Dataset #:	4
Motif ID:	38
Motif name:	cccGCCCCGCCCCsb
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	14
Similarity score:	0.0012818

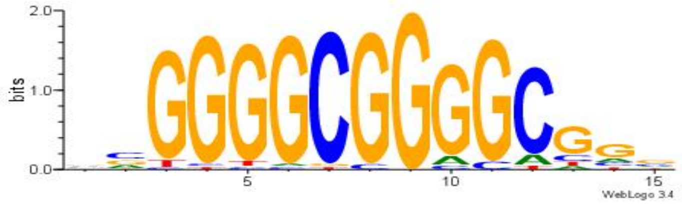
Alignment:

```
BCCGCCCCGCCCCBB
-CSKCCCCGCCCCSY
```

Original motif Consensus sequence: BCCGCCCCGCCCCBB



Reverse complement motif Consensus sequence: BBGGGGCGGGGCGGB

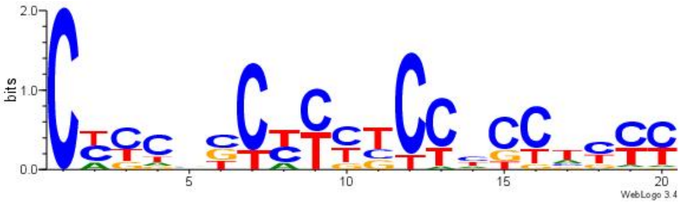


Dataset #:	5
Motif ID:	54
Motif name:	TFM12
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	4
Number of overlap:	14
Similarity score:	0.0537802

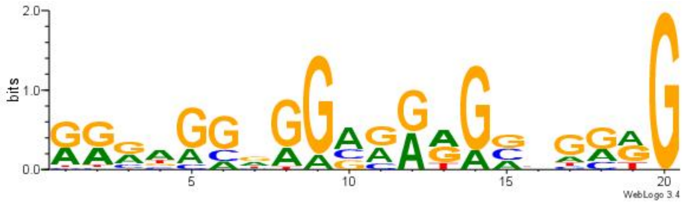
Alignment:

```
CYYCBBCYYYTCCHCCTYYY
---CSKCCCCGCCCCSY---
```

Original motif Consensus sequence: CYYCBBCYYYTCCHCCTYYY



Reverse complement motif Consensus sequence: KKKAGGDGGAKKMGBBGKMG



Dataset #: 3

Motif ID: 31

Motif name: Pax5

Matching format of first motif: Reverse Complement

Matching format of second motif: Original Motif

Direction: Forward

Position number: 7

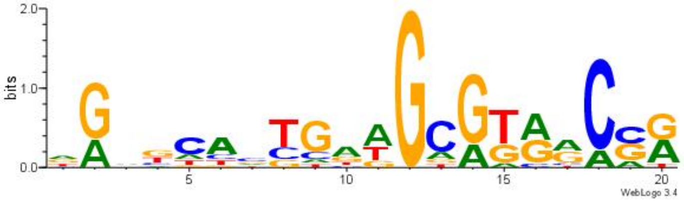
Number of overlap: 14

Similarity score: 0.0662825

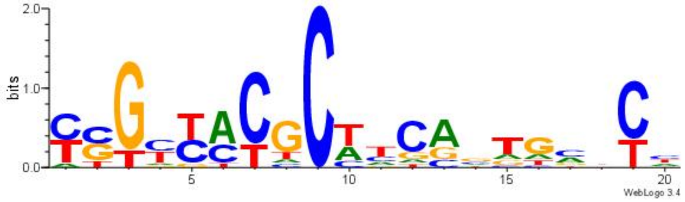
Alignment:

```
DGVBCABTGDWGCGKRRCSR
------MSGGGGCGGGGYSG
```

Original motif Consensus sequence: DGVBCABTGDWGCGKRRCSR



Reverse complement motif Consensus sequence: MSGKKRCGCWDCABTGBBCD



Dataset #: 5

Motif ID: 51

Motif name: TFM2

Matching format of first motif: Original Motif

Matching format of second motif: Reverse Complement

Direction: Forward

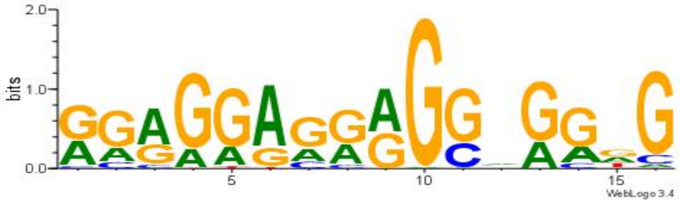
Position number: 1

Number of overlap:	14
Similarity score:	0.0758609

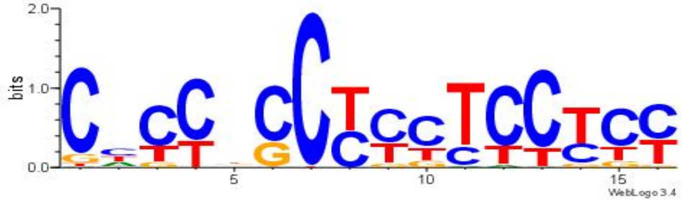
Alignment:

```
CHCCBCCKMCTCCKCM
CSKCCCCGCCCCSY--
```

Original motif Consensus sequence: RGRGGAGRRGGHGGDG

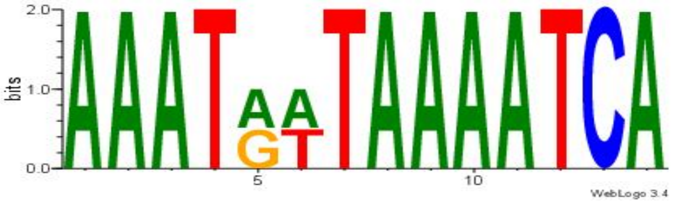


Reverse complement motif Consensus sequence: CHCCBCCKMCTCCKCM

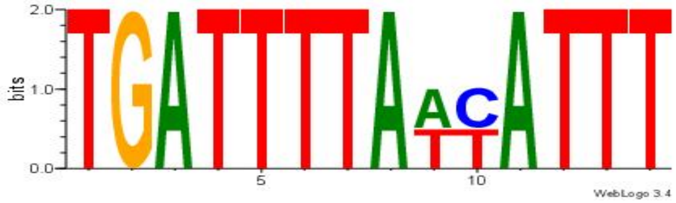


Dataset #: 2 **Motif ID: 8** **Motif name: Motif 8**

Original motif Consensus sequence: AAATRWTAAAATCA



Reverse complement motif Consensus sequence: TGATTTTAWKATT



Best Matches for Motif ID 8 (Highest to Lowest)

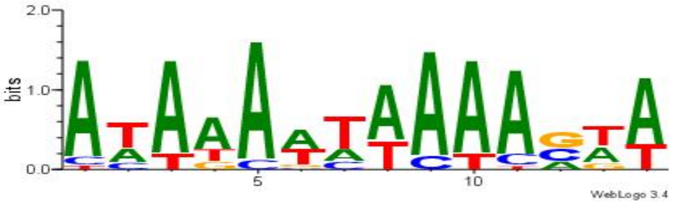
Dataset #:	2
Motif ID:	3
Motif name:	Motif 3
Matching format of first motif:	Reverse Complement

Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	14
Similarity score:	0.0961539

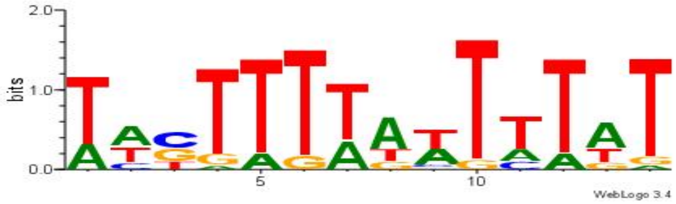
Alignment:

```
TWSTTTWAWTTTWT
TGATTTTAWKATTT
```

Original motif Consensus sequence: AWAAAWTWAAASWA



Reverse complement motif Consensus sequence: TWSTTTWAWTTTW

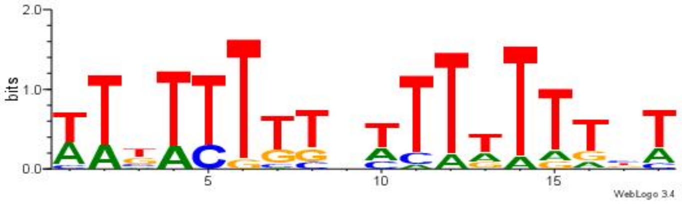


Dataset #:	5
Motif ID:	52
Motif name:	TFM1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	4
Number of overlap:	14
Similarity score:	0.10348

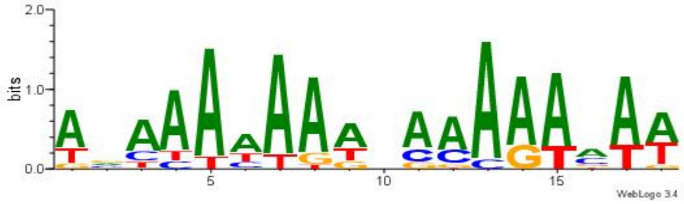
Alignment:

WTKTTTTTHWTTTTTTBT
-TGATTTTAWKATTT---

Original motif Consensus sequence: WTKTTTTTHWTTTTTTBT



Reverse complement motif Consensus sequence: ABAAAAAAWHAAAAARAW

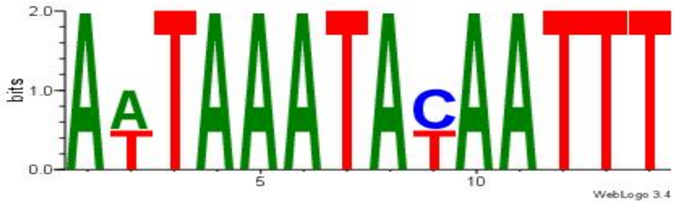


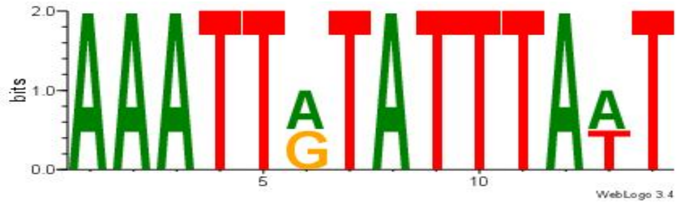
Dataset #: 2
Motif ID: 5
Motif name: Motif 5
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 1
Number of overlap: 14
Similarity score: 0.107143

Alignment:
AAATTKTATTTAWT
TGATTTTAWKATTT

Original motif Consensus sequence: AWTAAATAYAATTT

Reverse complement motif Consensus sequence: AAATTKTATTTAW



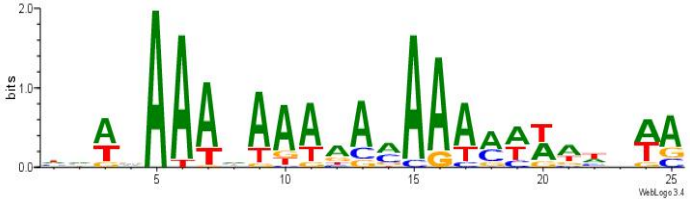


Dataset #:	5
Motif ID:	56
Motif name:	TFM11
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	7
Number of overlap:	14
Similarity score:	0.111345

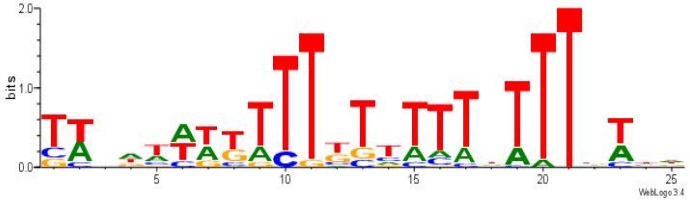
Alignment:

```
HDWVAAAHAAAAAMAAAMWWWHBWA
-----AAATRWTAAAATCA------
```

Original motif Consensus sequence:
HDWVAAAHAAAAAMAAAMWWWHBWA



Reverse complement motif Consensus sequence:
TWVHWWWYTTTYTTTTTHTTTVWBH



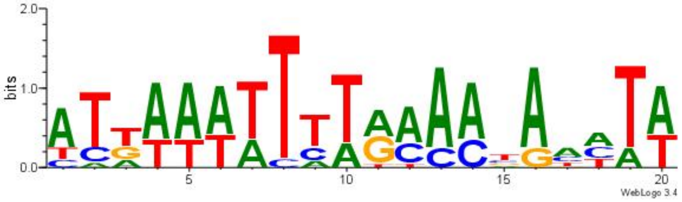
Dataset #:	5

Motif ID:	55
Motif name:	TFM13
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:	0.11369

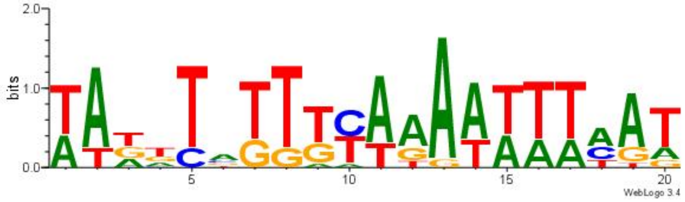
Alignment:

```
WAHHTVTTYKAAAAWTTRAT
---TGATTTTAWKATTT---
```

Original motif Consensus sequence: ATKAAWTTTTRMAABAHHTW

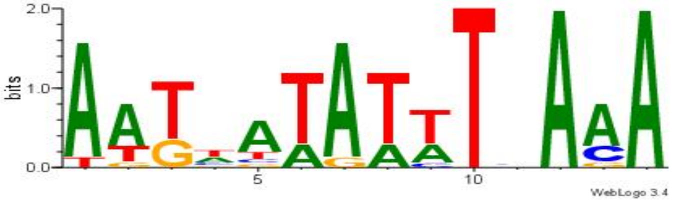


Reverse complement motif Consensus sequence: WAHHTVTTYKAAAAWTTRAT

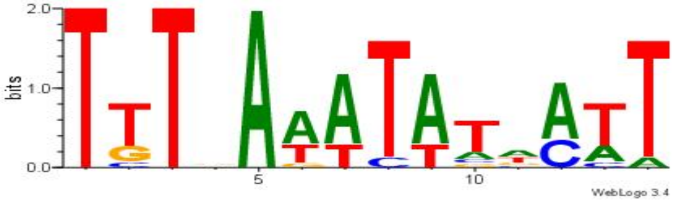


Dataset #: 2 Motif ID: 9 Motif name: Motif 9

Original motif Consensus sequence: AATHATATWTHAAA



Reverse complement motif Consensus sequence: TTTDAWATATHAT



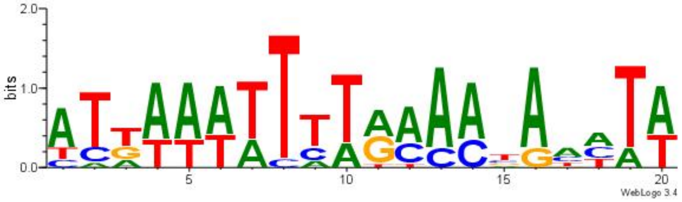
Best Matches for Motif ID 9 (Highest to Lowest)

Dataset #:	5
Motif ID:	55
Motif name:	TFM13
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:	0.0332341

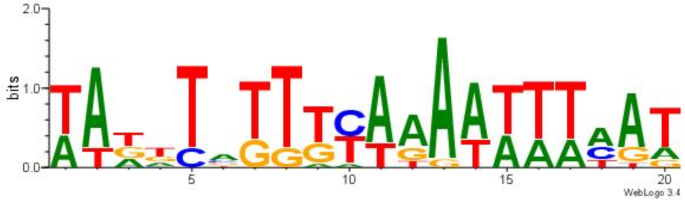
Alignment:

```
WAHHTVTTYKAAAAWTTRAT
------TTTDAWATATHATT
```

Original motif   Consensus sequence: ATKAAWTTTTRMAABAHHTW



Reverse complement motif   Consensus sequence: WAHHTVTTYKAAAAWTTRAT



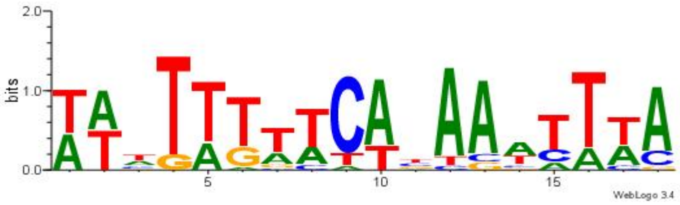
Dataset #:	5
Motif ID:	53
Motif name:	TFM3
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif

Direction: Backward
Position number: 2
Number of overlap: 14
Similarity score: 0.0486562

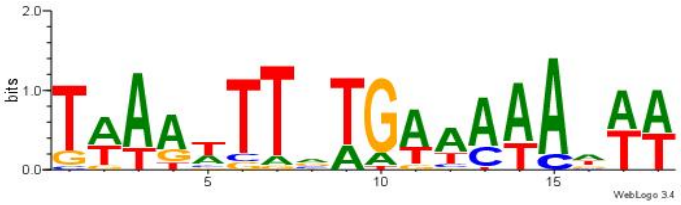
Alignment:

```
WWHTTTTTCABAAWTTWA
---TTTDAWATATHATT-
```

Original motif Consensus sequence: WWHTTTTTCABAAWTTWA



Reverse complement motif Consensus sequence: TWAAWTTVTGAAAAAHWW

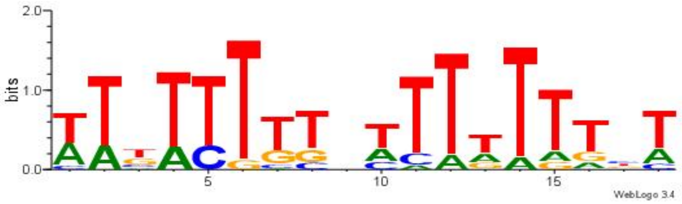


Dataset #: 5
Motif ID: 52
Motif name: TFM1
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 4
Number of overlap: 14
Similarity score: 0.0528083

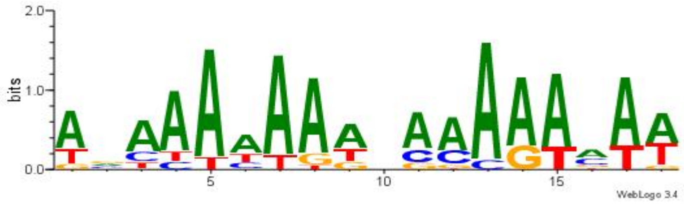
Alignment:

```
WTKTTTTTHWTTTTTTBT
---TTTDAWATATHATT-
```

Original motif Consensus sequence: WTKTTTTTHWTTTTTTBT



Reverse complement motif Consensus sequence: ABAAAAAAWHAAAAARAW

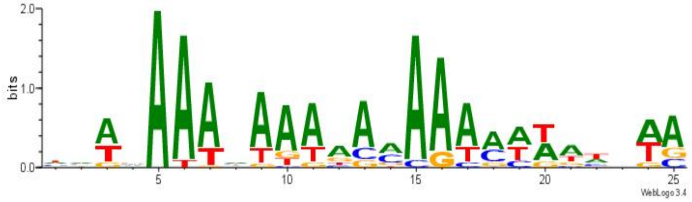


Dataset #:	5
Motif ID:	56
Motif name:	TFM11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	14
Similarity score:	0.054155

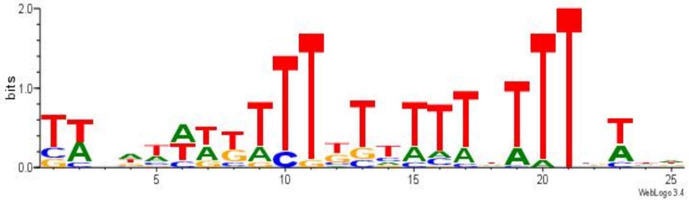
Alignment:

```
HDWVAAAHAAAAAMAAAMWWWHBWA
TTTDAWATATHATT-----------
```

Original motif Consensus sequence: HDWVAAAHAAAAAMAAAMWWWHBWA



Reverse complement motif Consensus sequence: TWVHWWWYTTTYTTTTTHTTTVWBH

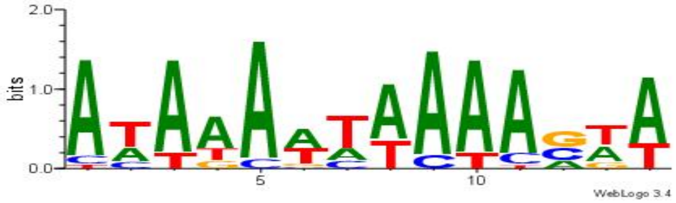


Dataset #: 2
Motif ID: 3
Motif name: Motif 3
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 1
Number of overlap: 14
Similarity score: 0.0675748

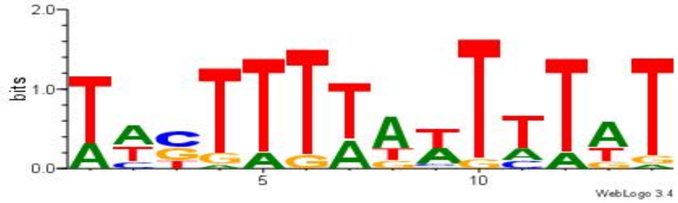
Alignment:

```
TWSTTTWAWTTTWT
AATHATATWTHAAA
```

Original motif Consensus sequence: AWAAAWTWAAASWA

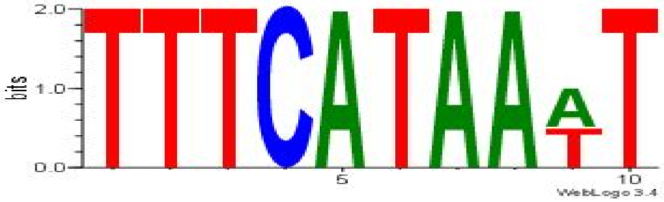


Reverse complement motif Consensus sequence: TWSTTTWAWTTTW

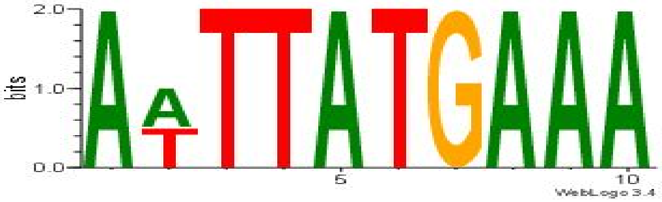


Dataset #: 2 Motif ID: 10 Motif name: Motif 10

Original motif Consensus sequence: TTTCATAAWT



Reverse complement motif Consensus sequence: AWTTATGAAA



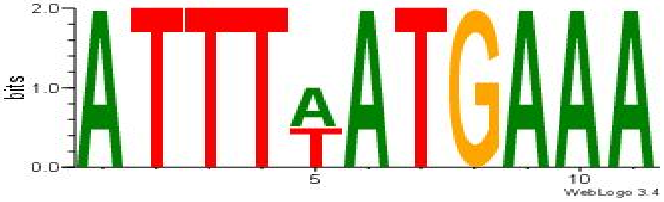
Best Matches for Motif ID 10 (Highest to Lowest)

Dataset #: 2
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: 2
Number of overlap: 10
Similarity score: 0.01875

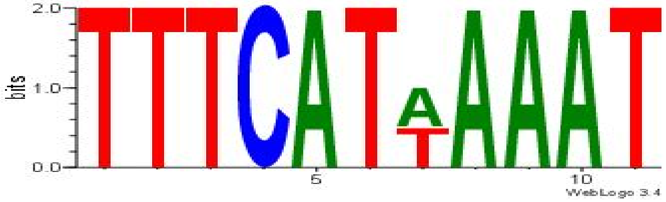
Alignment:

```
ATTTWATGAAA
-AWTTATGAAA
```

Original motif Consensus sequence: ATTTWATGAAA



Reverse complement motif Consensus sequence: TTTCATWAAAT



Dataset #: 2
Motif ID: 6
Motif name: Motif 6
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif

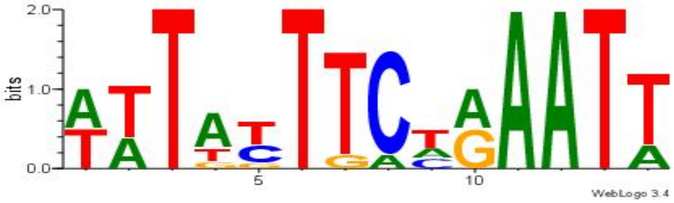
Direction: Forward
Position number: 5
Number of overlap: 10
Similarity score: 0.0375

Alignment:

```
AATTYDGAARTAWW
----AWTTATGAAA
```

Original motif Consensus sequence: AATTYDGAARTAWW

Reverse complement motif Consensus sequence: WWTAKTTCDKAAT

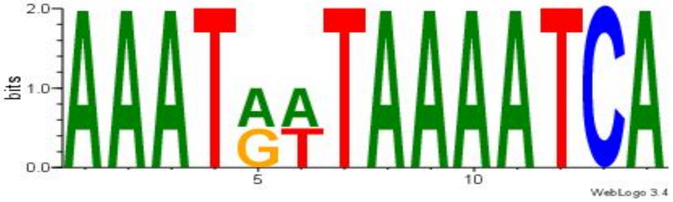


Dataset #: 2
Motif ID: 8
Motif name: Motif 8
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 4
Number of overlap: 10
Similarity score: 0.04375

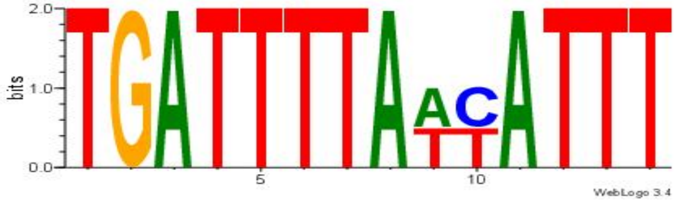
Alignment:

```
TGATTTTAWKATTT
-TTTCATAAWT---
```

Original motif Consensus sequence: AAATRWTAAAATCA



Reverse complement motif Consensus sequence: TGATTTTAWKATT

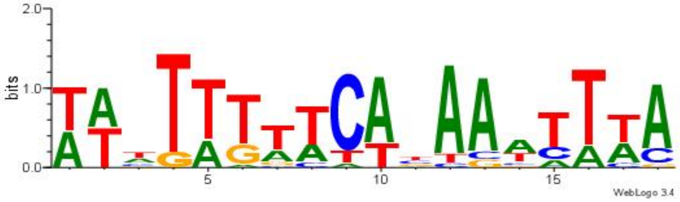


Dataset #:	5
Motif ID:	53
Motif name:	TFM3
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	6
Number of overlap:	10
Similarity score:	0.0448864

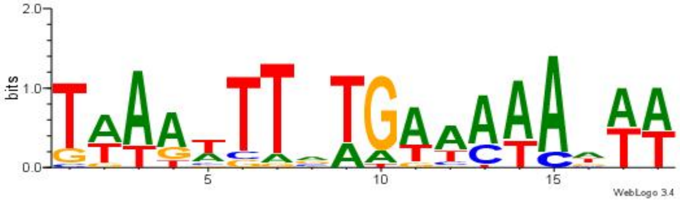
Alignment:

```
TWAAWTTVTGAAAAAHWW
---AWTTATGAAA-----
```

Original motif Consensus sequence: WWHTTTTTCABAAWTTWA



Reverse complement motif Consensus sequence:
TWAAWTTVTGAAAAAHWW

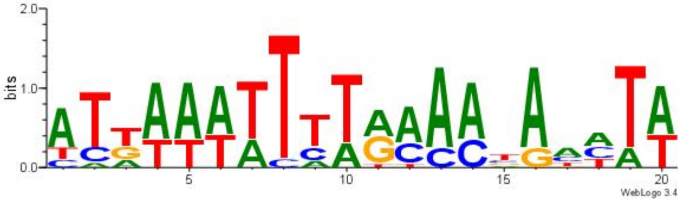


Dataset #: 5
Motif ID: 55
Motif name: TFM13
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 5
Number of overlap: 10
Similarity score: 0.0545833

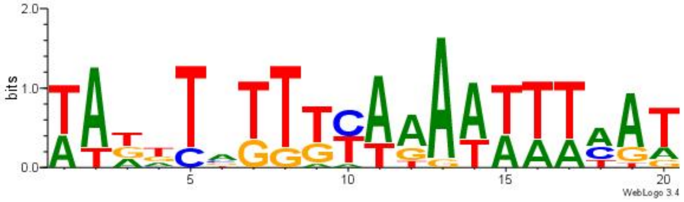
Alignment:

```
ATKAAWTTTTRMAABAHHTW
----AWTTATGAAA------
```

Original motif Consensus sequence: ATKAAWTTTTRMAABAHHTW



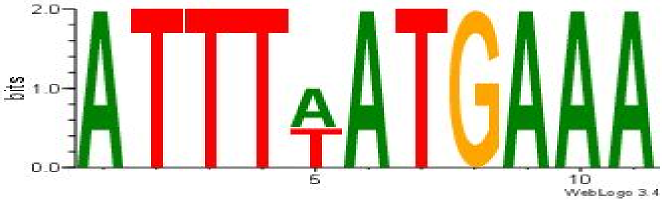
Reverse complement motif Consensus sequence: WAHHTVTTYKAAAAWTTRAT

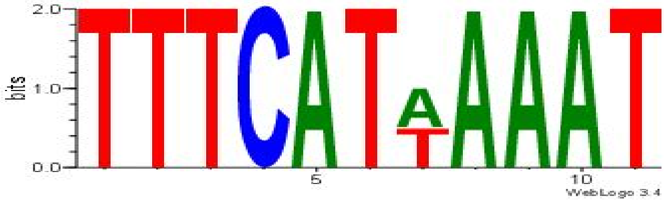


Dataset #: 2 **Motif ID: 11** **Motif name: Motif 11**

Original motif Consensus sequence: ATTTWATGAAA

Reverse complement motif Consensus sequence: TTTCATWAAAT





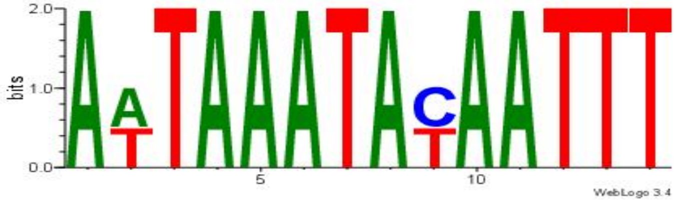
Best Matches for Motif ID 11 (Highest to Lowest)

Dataset #:	2
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:	4
Number of overlap:	11
Similarity score:	0.0795455

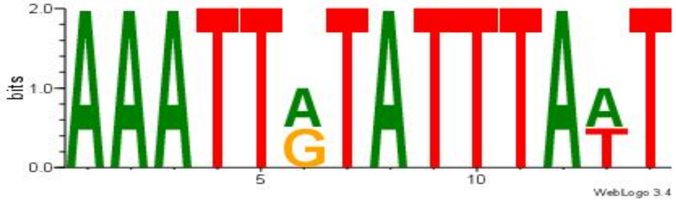
Alignment:

```
AAATTKTATTTAWT
---TTTCATWAAAT
```

Original motif Consensus sequence: AWTAAATAYAATTT



Reverse complement motif Consensus sequence: AAATTKTATTTAW



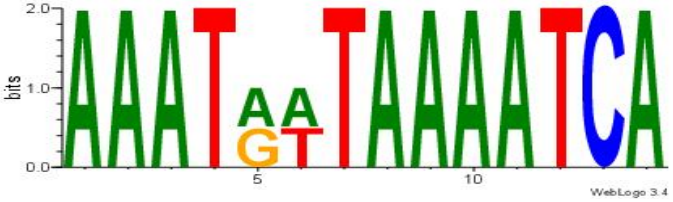
Dataset #:	2

Motif ID: 8
Motif name: Motif 8
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: 0.0795455

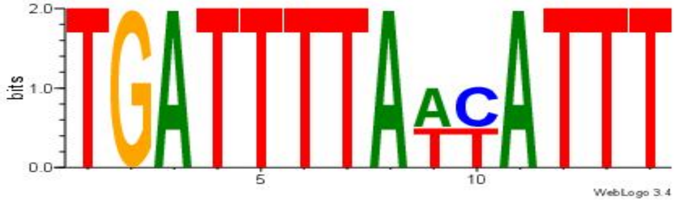
Alignment:

```
AAATRWTAAAATCA
--TTTCATWAAAT-
```

Original motif Consensus sequence: AAATRWTAAAATCA



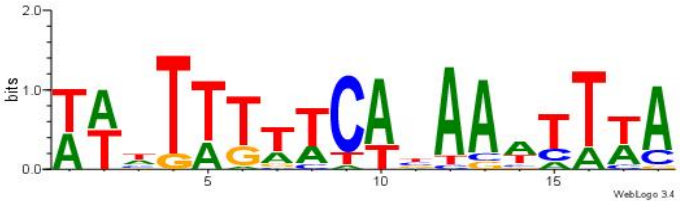
Reverse complement motif Consensus sequence: TGATTTTAWKATT



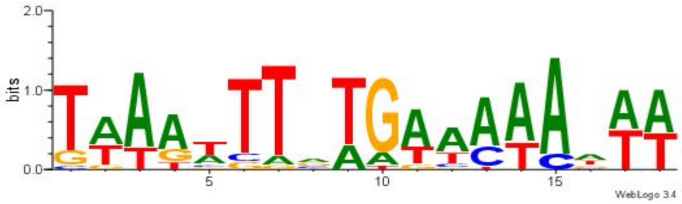
Dataset #: 5
Motif ID: 53
Motif name: TFM3
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 6
Number of overlap: 11
Similarity score: 0.0991736

Alignment:
`WWHTTTTTCABAAWTTWA`
`-----TTTCATWAAAT--`

Original motif Consensus sequence: WWHTTTTTCABAAWTTWA



Reverse complement motif Consensus sequence: TWAAWTTVTGAAAAAHWW

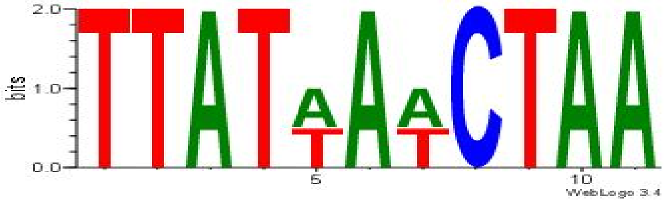


Dataset #:	2
Motif ID:	18
Motif name:	Motif 18
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.102273

Alignment:
`TTATWAWCTAA`
`ATTTWATGAAA`

Original motif Consensus sequence: TTAGWTWATAA

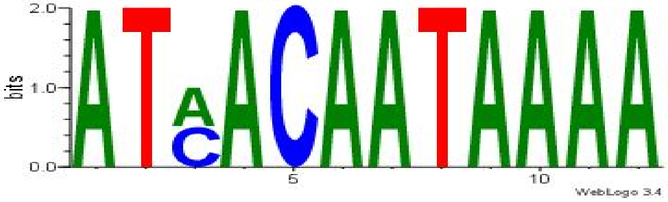
Reverse complement motif Consensus sequence: TTATWAWCTAA



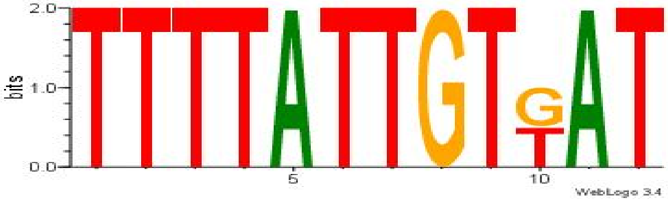
Dataset #: 2
Motif ID: 15
Motif name: Motif 15
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 1
Number of overlap: 11
Similarity score: 0.102273

Alignment:
TTTTATTGTYAT
ATTTWATGAAA-

Original motif Consensus sequence: ATMACAATAAAA



Reverse complement motif Consensus sequence: TTTTATTGTYAT



Dataset #: 2 Motif ID: 12 Motif name: Motif 12

Original motif Consensus sequence: AAAACAAA

Reverse complement motif Consensus sequence: TTTGTTTT

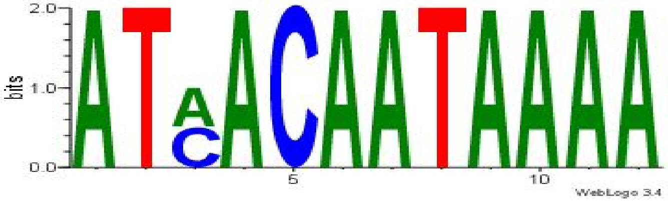
Best Matches for Motif ID 12 (Highest to Lowest)

Dataset #:	2
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:	4
Number of overlap:	8
Similarity score:	0.0625

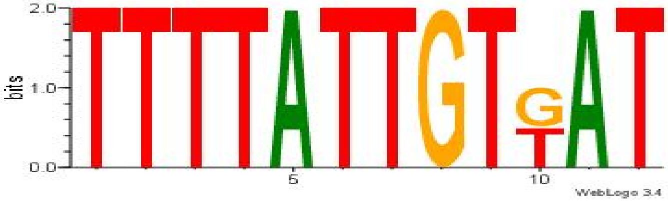
Alignment:

```
TTTTATTGTYAT
-TTTGTTTT---
```

Original motif Consensus sequence: ATMACAATAAAA



Reverse complement motif Consensus sequence: TTTTATTGTYAT



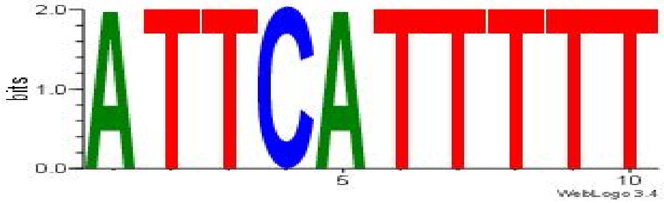
Dataset #: 2
Motif ID: 17
Motif name: Motif 17
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 2
Number of overlap: 8
Similarity score: 0.0625

Alignment:

```
AAAAATGAAT
-AAAACAAA-
```

Original motif Consensus sequence: AAAAATGAAT

Reverse complement motif Consensus sequence: ATTCATTTTT

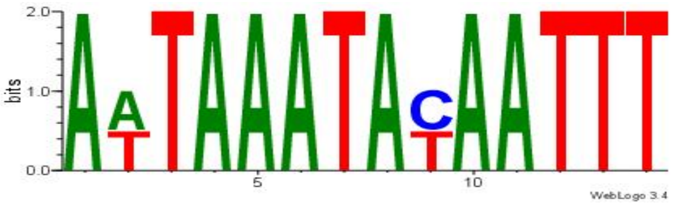


Dataset #: 2
Motif ID: 5
Motif name: Motif 5
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 3
Number of overlap: 8

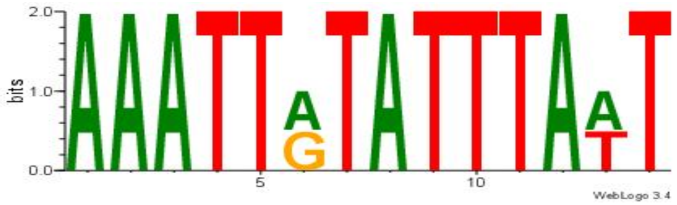
Similarity score: 0.078125

Alignment:
`AWTAAATAYAATTT`
`----AAAACAAA--`

Original motif Consensus sequence: AWTAAATAYAATTT



Reverse complement motif Consensus sequence: AAATTKTATTTAW

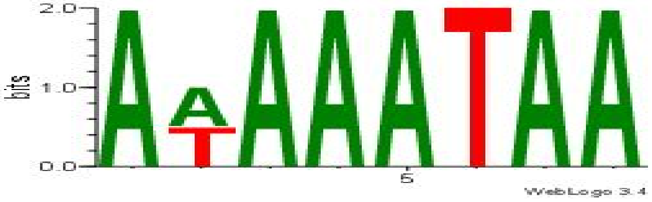


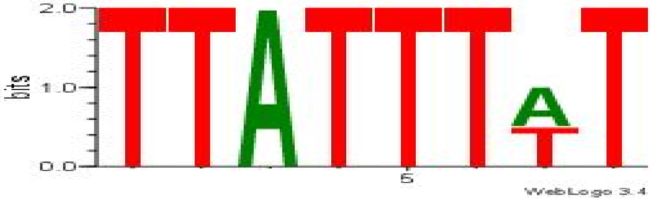
Dataset #:	2
Motif ID:	14
Motif name:	Motif 14
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	8
Similarity score:	0.078125

Alignment:
`AWAAATAA`
`AAAACAAA`

Original motif Consensus sequence: AWAAATAA

Reverse complement motif Consensus sequence: TTATTTWT



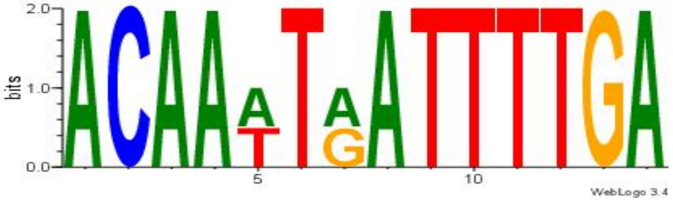


Dataset #:	2
Motif ID:	16
Motif name:	Motif 16
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	5
Number of overlap:	8
Similarity score:	0.078125

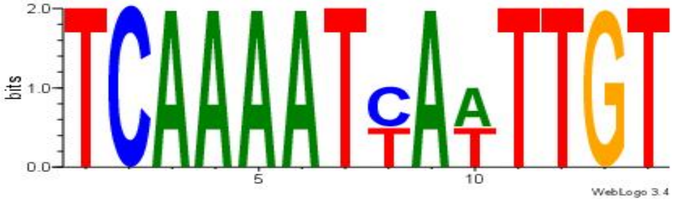
Alignment:

```
TCAAAATKAWTTGT
--AAAACAAA----
```

Original motif Consensus sequence: ACAAWTRATTTTGA



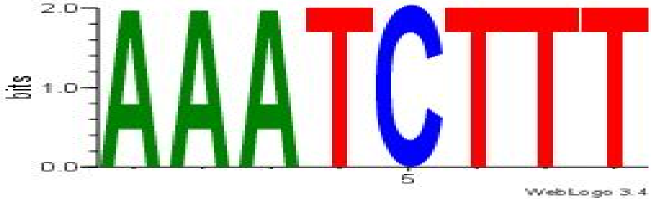
Reverse complement motif Consensus sequence: TCAAAATKAWTTG



Dataset #: 2 **Motif ID: 13** **Motif name: Motif 13**

Original motif Consensus sequence: AAAGATTT

Reverse complement motif Consensus sequence: AAATCTTT



Best Matches for Motif ID 13 (Highest to Lowest)

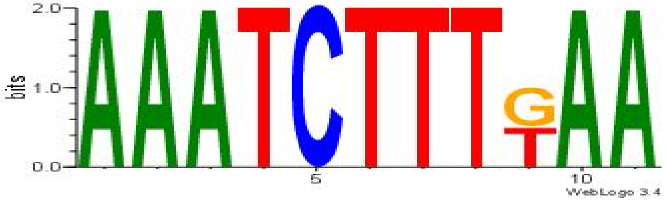
Dataset #:	2
Motif ID:	20
Motif name:	Motif 20
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	8
Similarity score:	0

Alignment:

```
AAATCTTTYAA
AAATCTTT---
```

Original motif Consensus sequence: TTMAAAGATTT

Reverse complement motif Consensus sequence: AAATCTTTYAA

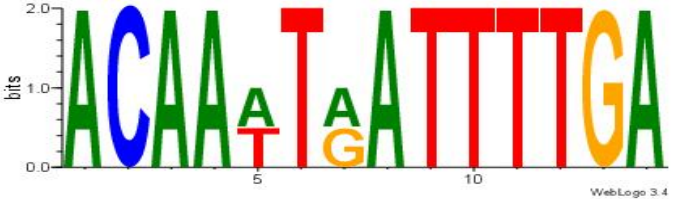


Dataset #:	2
Motif ID:	16
Motif name:	Motif 16
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	5
Number of overlap:	8
Similarity score:	0.0625

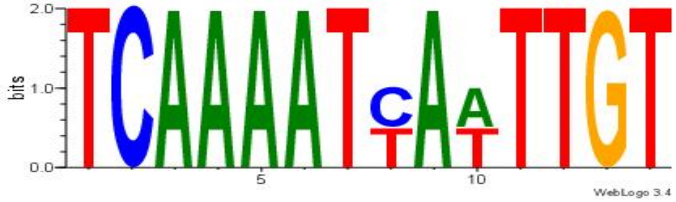
Alignment:

```
TCAAAATKAWTTGT
----AAAGATTT--
```

Original motif Consensus sequence: ACAAWTRATTTTGA



Reverse complement motif Consensus sequence: TCAAAATKAWTTG



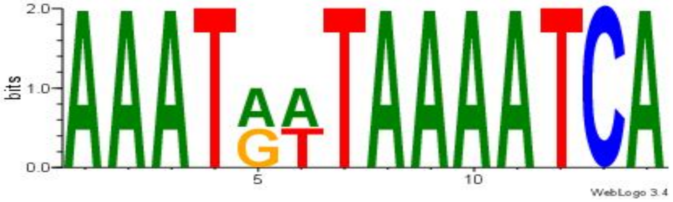
Dataset #:	2
Motif ID:	8
Motif name:	Motif 8
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	8

Similarity score: 0.0625

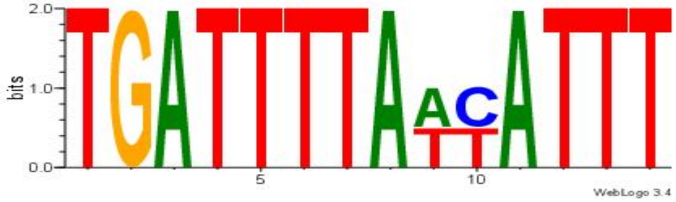
Alignment:

```
AAATRWTAAAATCA
------AAATCTTT
```

Original motif Consensus sequence: AAATRWTAAAATCA



Reverse complement motif Consensus sequence: TGATTTTAWKATT



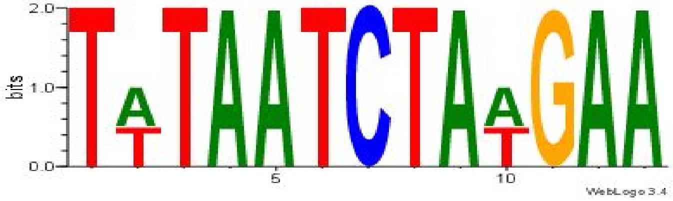
Dataset #:	2
Motif ID:	19
Motif name:	Motif 19
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	8
Similarity score:	0.078125

Alignment:

```
TTCWTAGATTAWA
---AAAGATTT--
```

Original motif Consensus sequence: TTCWTAGATTAWA

Reverse complement motif Consensus sequence: TWTAATCTAWGA

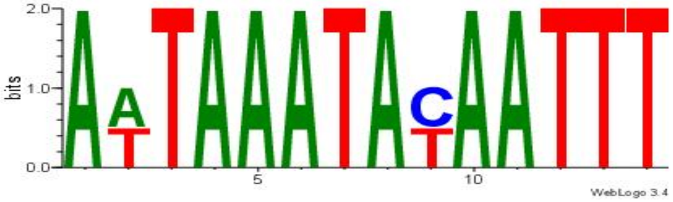


Dataset #:	2
Motif ID:	5
Motif name:	Motif 5
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	8
Similarity score:	0.078125

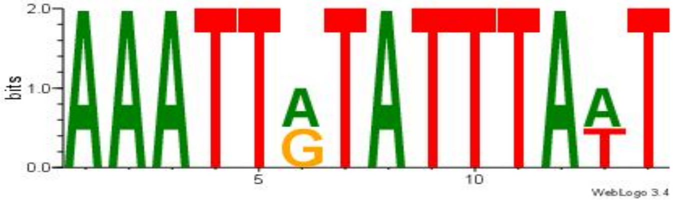
Alignment:

```
AAATTKTATTTAWT
AAATCTTT------
```

Original motif Consensus sequence: AWTAAATAYAATTT

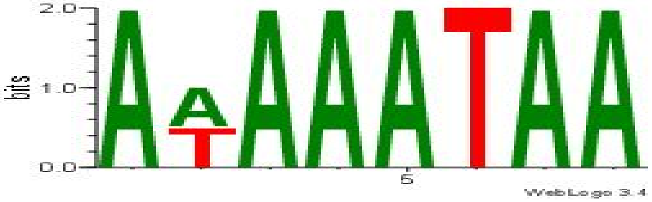


Reverse complement motif Consensus sequence: AAATTKTATTTAW

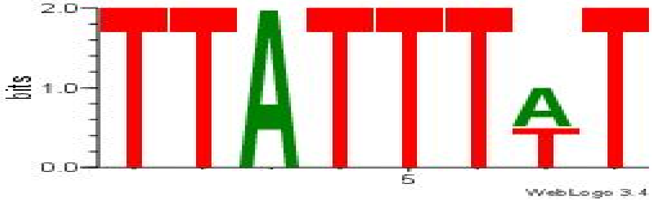


Dataset #: 2 **Motif ID: 14** **Motif name: Motif 14**

Original motif Consensus sequence: AWAAATAA



Reverse complement motif Consensus sequence: TTATTTWT



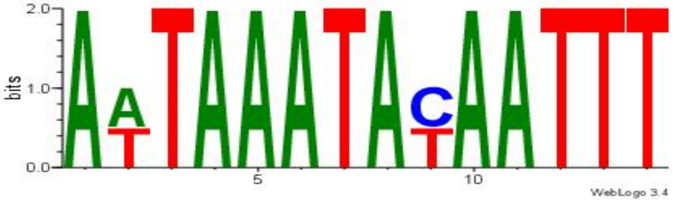
Best Matches for Motif ID 14 (Highest to Lowest)

Dataset #:	2
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:	6
Number of overlap:	8
Similarity score:	0.046875

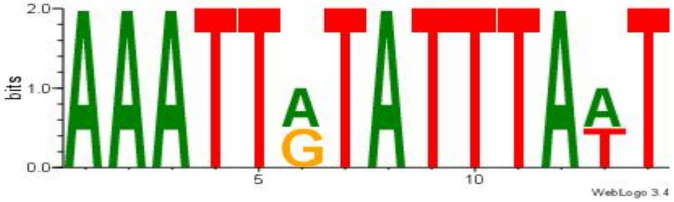
Alignment:

```
AAATTKTATTTAWT
-----TTATTTWT-
```

Original motif Consensus sequence: AWTAAATAYAATTT



Reverse complement motif Consensus sequence: AAATTKTATTTAW



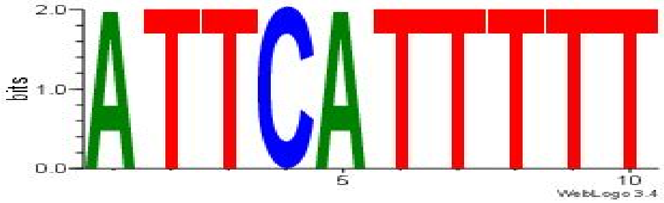
Dataset #:	2
Motif ID:	17
Motif name:	Motif 17
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	8
Similarity score:	0.046875

Alignment:

AAAAATGAAT
AWAAATAA--

Original motif Consensus sequence: AAAAATGAAT

Reverse complement motif Consensus sequence: ATTCATTTTT

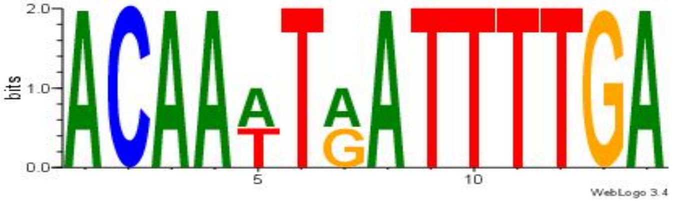


Dataset #:	2
Motif ID:	16
Motif name:	Motif 16
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	8

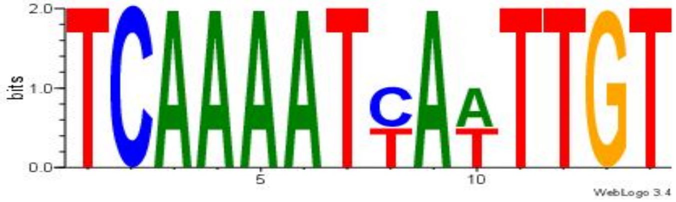
Similarity score: 0.0625

Alignment:
TCAAAATKAWTTGT
------TTATTTWT

Original motif Consensus sequence: ACAAWTRATTTTGA



Reverse complement motif Consensus sequence: TCAAAATKAWTTG

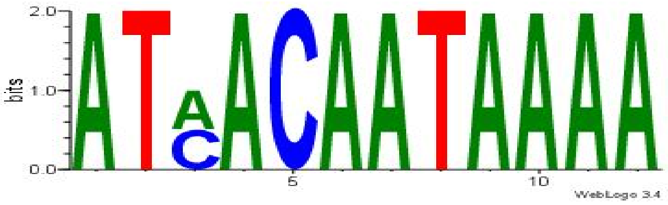


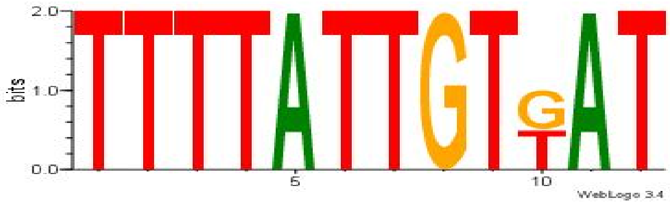
Dataset #:	2
Motif ID:	15
Motif name:	Motif 15
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	8
Similarity score:	0.0625

Alignment:
ATMACAATAAAA
--AWAAATAA--

Original motif Consensus sequence: ATMACAATAAAA

Reverse complement motif Consensus sequence: TTTTATTGTYAT



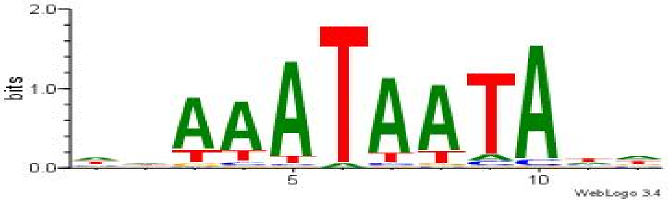


Dataset #:	4
Motif ID:	41
Motif name:	wwAAATAATAtw
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	5
Number of overlap:	8
Similarity score:	0.0636574

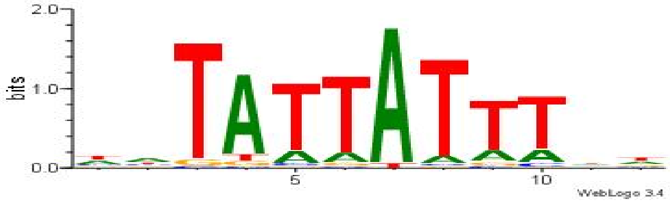
Alignment:

```
HDAAATAATADD
AWAAATAA----
```

Original motif Consensus sequence: HDAAATAATADD

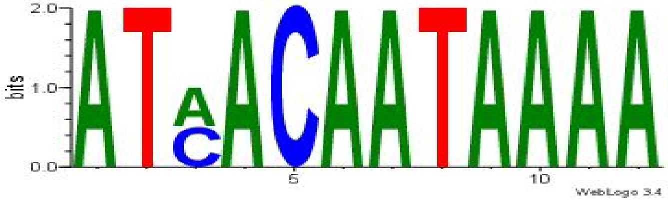


Reverse complement motif Consensus sequence: DDTATTATTTDH

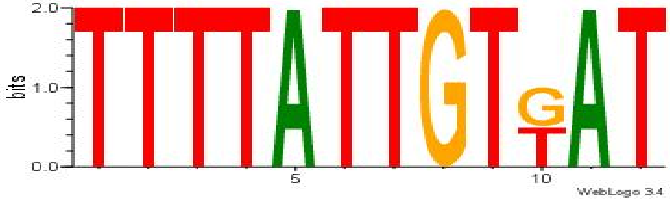


Dataset #: 2 **Motif ID: 15** **Motif name: Motif 15**

Original motif Consensus sequence: ATMACAATAAAA



Reverse complement motif Consensus sequence: TTTTATTGTYAT



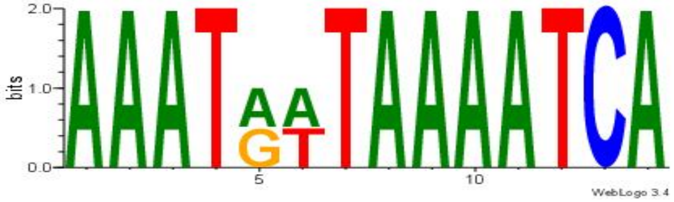
Best Matches for Motif ID 15 (Highest to Lowest)

Dataset #:	2
Motif ID:	8
Motif name:	Motif 8
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:	0.104167

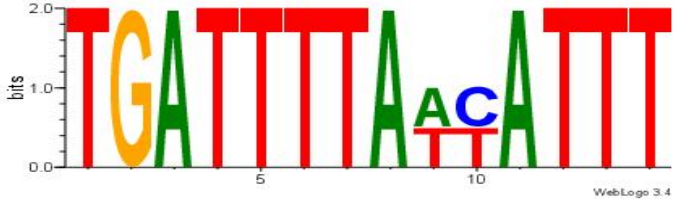
Alignment:

```
AAATRWTAAAATCA
--ATMACAATAAAA
```

Original motif Consensus sequence: AAATRWTAAAATCA



Reverse complement motif Consensus sequence: TGATTTTAWKATT

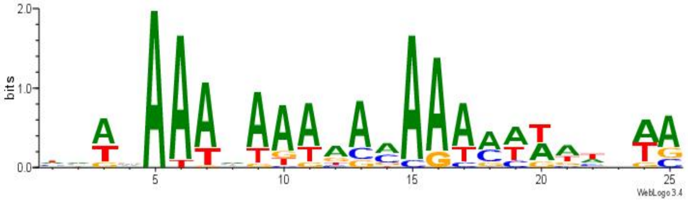


Dataset #:	5
Motif ID:	56
Motif name:	TFM11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	6
Number of overlap:	12
Similarity score:	0.109681

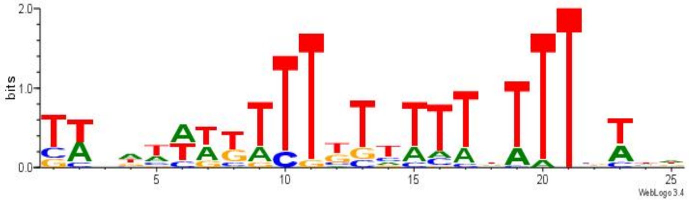
Alignment:

```
TWVHWWWYTTTYTTTTTHTTTVWBH
--------TTTTATTGTYAT-----
```

Original motif Consensus sequence:
HDWVAAAHAAAAAMAAAMWWWHBWA



Reverse complement motif Consensus sequence:
TWVHWWWYTTTYTTTTTHTTTVWBH

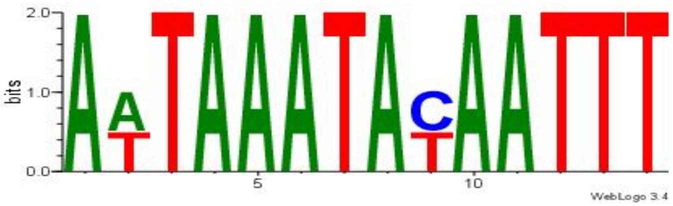


Dataset #:	2
Motif ID:	5
Motif name:	Motif 5
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2

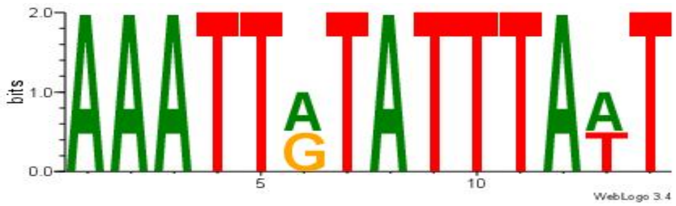
Number of overlap: 12
Similarity score: 0.114583

Alignment:
AWTAAATAYAATTT
-ATMACAATAAAA-

Original motif Consensus sequence: AWTAAATAYAATTT



Reverse complement motif Consensus sequence: AAATTKTATTTAW

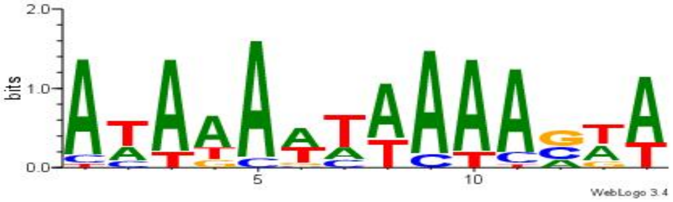


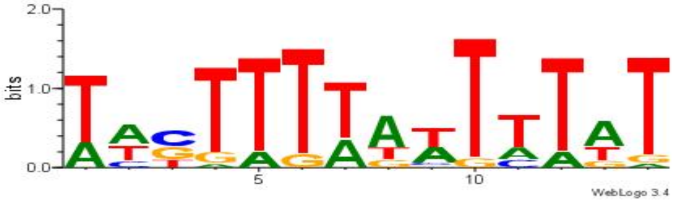
Dataset #: 2
Motif ID: 3
Motif name: Motif 3
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 1
Number of overlap: 12
Similarity score: 0.114583

Alignment:
AWAAAWTWAAASWA
ATMACAATAAAA--

Original motif Consensus sequence: AWAAAWTWAAASWA

Reverse complement motif Consensus sequence: TWSTTTWAWTTT



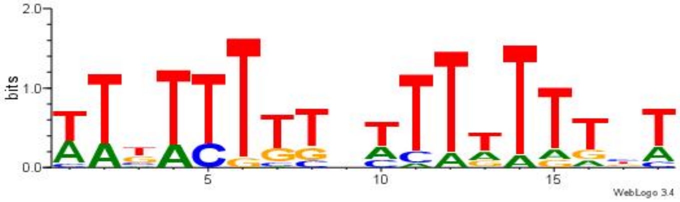


Dataset #:	5
Motif ID:	52
Motif name:	TFM1
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	12
Similarity score:	0.115652

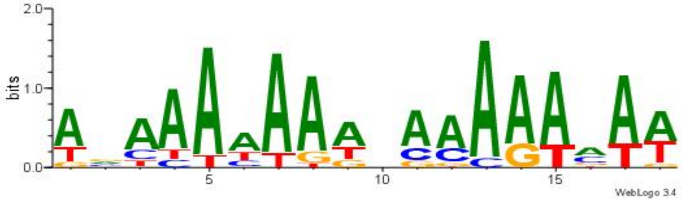
Alignment:

```
ABAAAAAAWHAAAAARAW
--ATMACAATAAAA----
```

Original motif Consensus sequence: WTKTTTTTHWTTTTTTBT

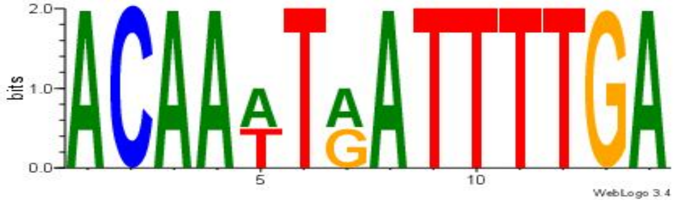


Reverse complement motif Consensus sequence: ABAAAAAAWHAAAAARAW

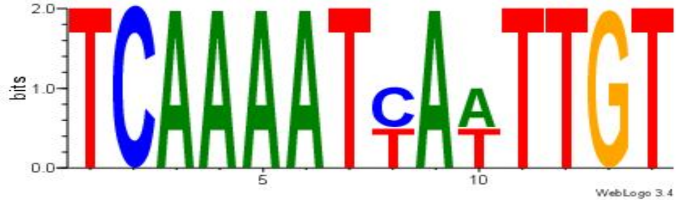


Dataset #: 2 Motif ID: 16 Motif name: Motif 16

Original motif Consensus sequence: ACAAWTRATTTTGA



Reverse complement motif Consensus sequence: TCAAAATKAWTTG



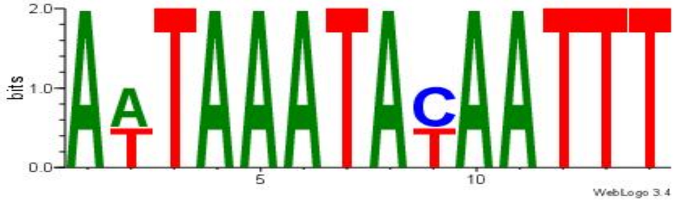
Best Matches for Motif ID 16 (Highest to Lowest)

Dataset #:	2
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:	0.1

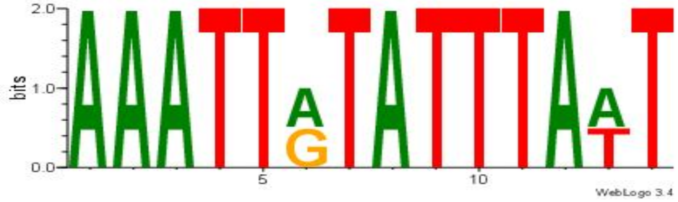
Alignment:

```
AWTAAATAYAATTT
TCAAAATKAWTTGT
```

Original motif Consensus sequence: AWTAAATAYAATTT



Reverse complement motif Consensus sequence: AAATTKTATTTAW

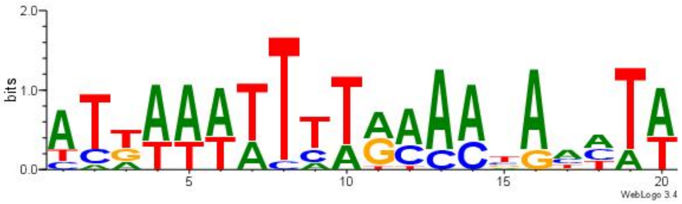


Dataset #:	5
Motif ID:	55
Motif name:	TFM13
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	8
Number of overlap:	13
Similarity score:	0.599359

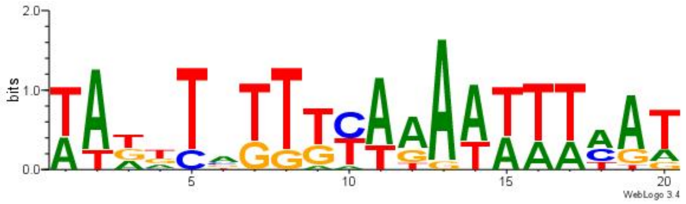
Alignment:

```
ATKAAWTTTTRMAABAHHTW-
-------TCAAAATKAWTTGT
```

Original motif Consensus sequence: ATKAAWTTTTRMAABAHHTW



Reverse complement motif Consensus sequence: WAHHTVTTYKAAAAWTTRAT



Dataset #:	2
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:	3

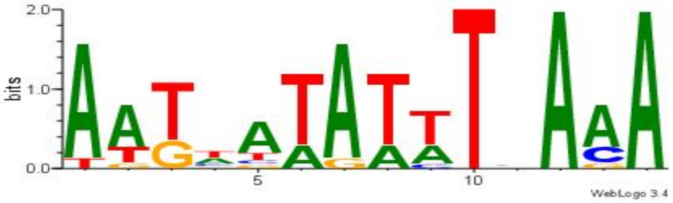
Number of overlap: 12

Similarity score: 1.08264

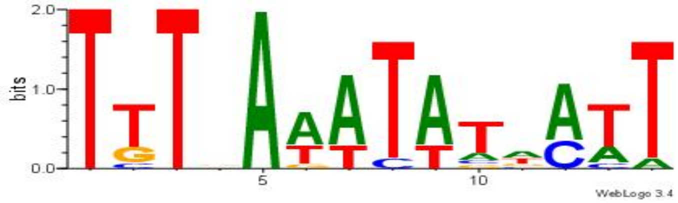
Alignment:

```
--AATHATATWTHAAA
ACAAWTRATTTTGA--
```

Original motif Consensus sequence: AATHATATWTHAAA



Reverse complement motif Consensus sequence: TTTDAWATATHAT



Dataset #: 4

Motif ID: 37

Motif name: tkAAATAATAtw

Matching format of first motif: Reverse Complement

Matching format of second motif: Reverse Complement

Direction: Backward

Position number: 1

Number of overlap: 12

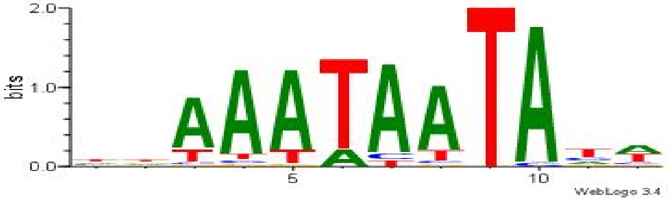
Similarity score: 1.08403

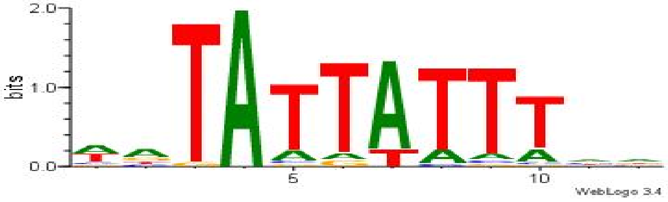
Alignment:

```
--WHTATTATTTDH
TCAAAATKAWTTGT
```

Original motif Consensus sequence: HDAAATAATAHW

Reverse complement motif Consensus sequence: WHTATTATTTDH



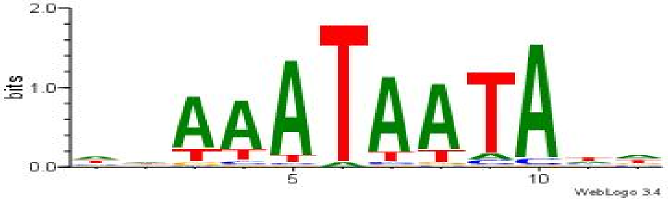


Dataset #:	4
Motif ID:	41
Motif name:	wwAAATAATAtw
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	12
Similarity score:	1.08881

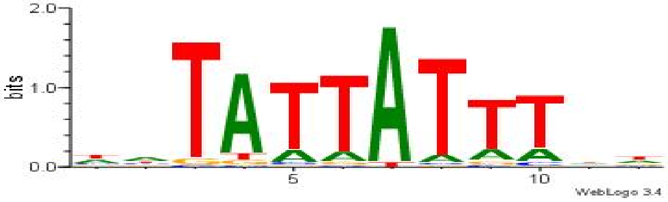
Alignment:

```
--DDTATTATTTDH
TCAAAATKAWTTGT
```

Original motif   Consensus sequence: HDAAATAATADD



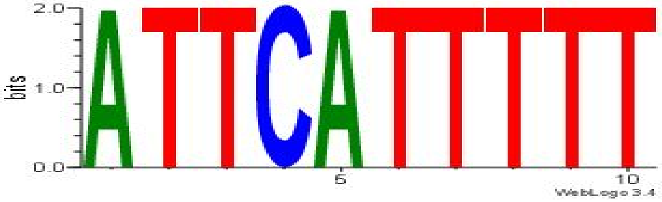
Reverse complement motif   Consensus sequence: DDTATTATTTDH



Dataset #: 2   Motif ID: 17   Motif name: Motif 17

Original motif Consensus sequence: AAAAATGAAT

Reverse complement motif Consensus sequence: ATTCATTTTT



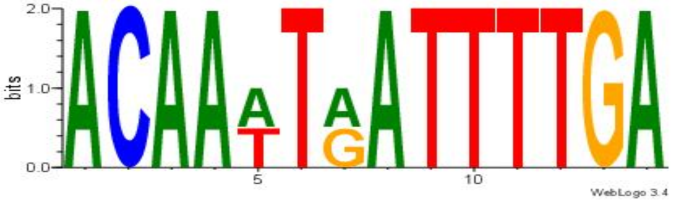
Best Matches for Motif ID 17 (Highest to Lowest)

Dataset #:	2
Motif ID:	16
Motif name:	Motif 16
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	4
Number of overlap:	10
Similarity score:	0.05

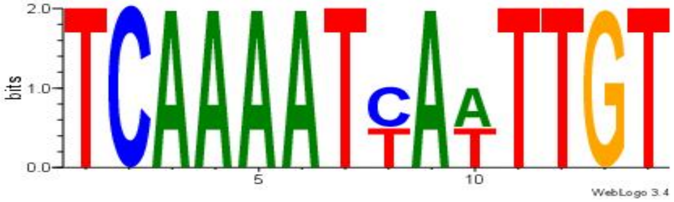
Alignment:

```
ACAAWTRATTTTGA
-ATTCATTTTT---
```

Original motif Consensus sequence: ACAAWTRATTTTGA



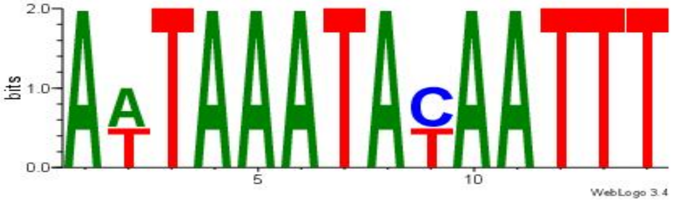
Reverse complement motif Consensus sequence: TCAAAATKAWTTG



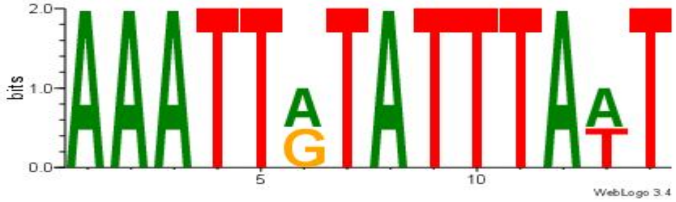
Dataset #: 2
Motif ID: 5
Motif name: Motif 5
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 4
Number of overlap: 10
Similarity score: 0.0875

Alignment:
AWTAAATAYAATTT
---AAAAATGAAT-

Original motif Consensus sequence: AWTAAATAYAATTT



Reverse complement motif Consensus sequence: AAATTKTATTTAW

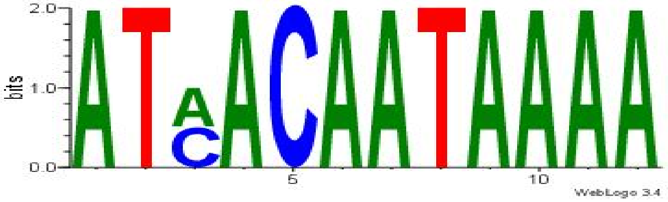


Dataset #: 2
Motif ID: 15
Motif name: Motif 15
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 3
Number of overlap: 10

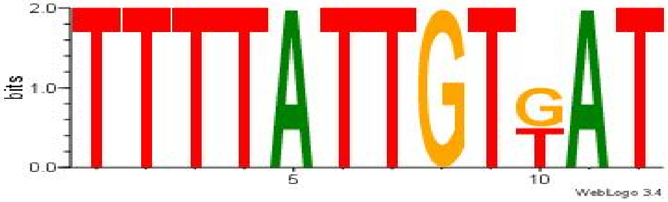
Similarity score: 0.0875

Alignment:
ATMACAATAAAA
--AAAAATGAAT

Original motif Consensus sequence: ATMACAATAAAA



Reverse complement motif Consensus sequence: TTTTATTGTYAT

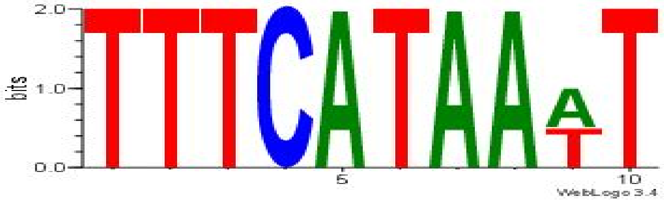


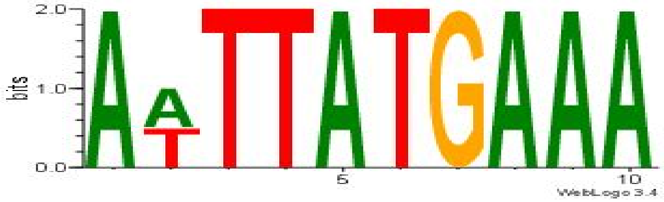
Dataset #: 2
Motif ID: 10
Motif name: Motif 10
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 1
Number of overlap: 10
Similarity score: 0.0875

Alignment:
AWTTATGAAA
AAAAATGAAT

Original motif Consensus sequence: TTTCATAAWT

Reverse complement motif Consensus sequence: AWTTATGAAA



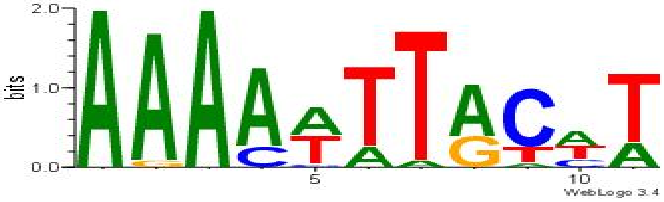


Dataset #:	2
Motif ID:	4
Motif name:	Motif 4
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	10
Similarity score:	0.0947369

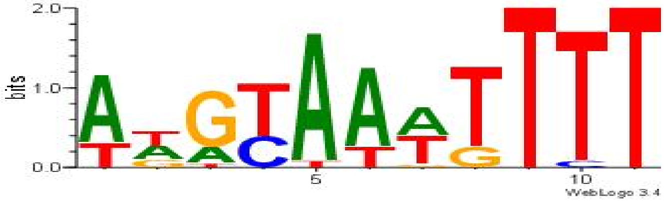
Alignment:

```
AWGKAAWTTTT
-ATTCATTTTT
```

Original motif Consensus sequence: AAAAWTTRCWT



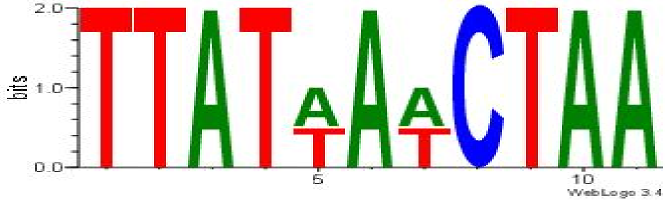
Reverse complement motif Consensus sequence: AWGKAAWTTTT



Dataset #: 2 Motif ID: 18 Motif name: Motif 18

Original motif Consensus sequence: TTAGWTWATAA

Reverse complement motif Consensus sequence: TTATWAWCTAA



Best Matches for Motif ID 18 (Highest to Lowest)

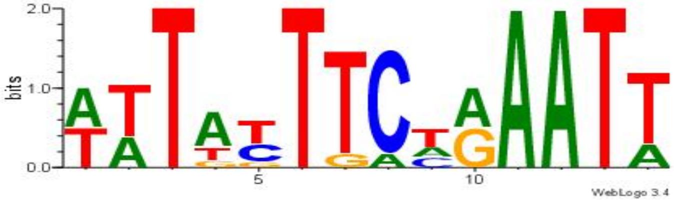
Dataset #:	2
Motif ID:	6
Motif name:	Motif 6
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	11
Similarity score:	0.09375

Alignment:

```
AATTYDGAARTAWW
-TTATWAWCTAA--
```

Original motif Consensus sequence: AATTYDGAARTAWW

Reverse complement motif Consensus sequence: WWTAKTTCDKAAT

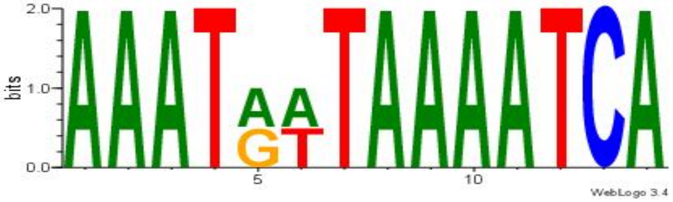


Dataset #: 2
Motif ID: 8
Motif name: Motif 8
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Backward
Position number: 4
Number of overlap: 11
Similarity score: 0.102273

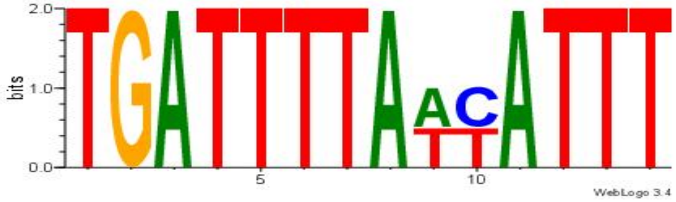
Alignment:

```
AAATRWTAAAATCA
TTATWAWCTAA---
```

Original motif Consensus sequence: AAATRWTAAAATCA



Reverse complement motif Consensus sequence: TGATTTTAWKATT



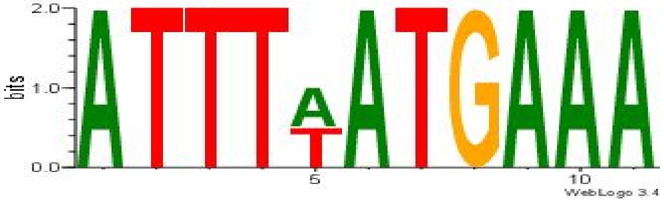
Dataset #: 2
Motif ID: 11
Motif name: Motif 11
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 1
Number of overlap: 11

Similarity score: 0.102273

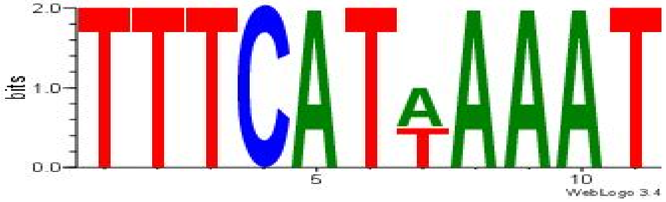
Alignment:

```
TTTCATWAAAT
TTAGWTWATAA
```

Original motif Consensus sequence: ATTTWATGAAA



Reverse complement motif Consensus sequence: TTTCATWAAAT



Dataset #: 4

Motif ID: 37

Motif name: tkAAATAATAtw

Matching format of first motif: Original Motif

Matching format of second motif: Original Motif

Direction: Backward

Position number: 2

Number of overlap: 11

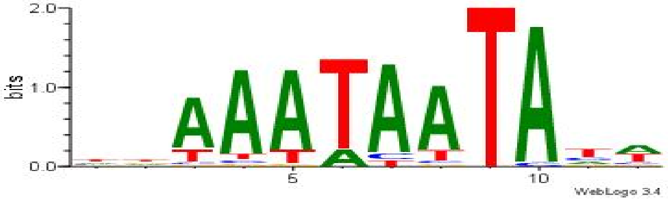
Similarity score: 0.102273

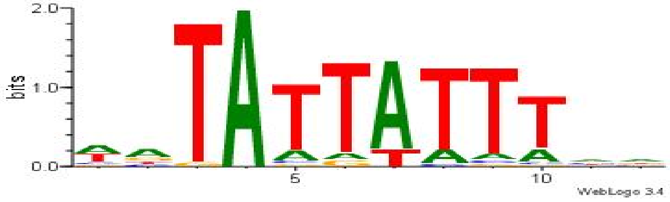
Alignment:

```
HDAAATAATAHW
TTAGWTWATAA-
```

Original motif Consensus sequence: HDAAATAATAHW

Reverse complement motif Consensus sequence: WHTATTATTTDH



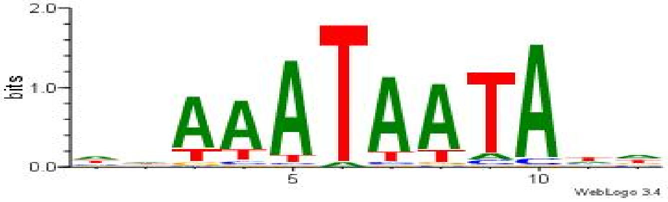


Dataset #: 4
Motif ID: 41
Motif name: wwAAATAATAtw
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 1
Number of overlap: 11
Similarity score: 0.104798

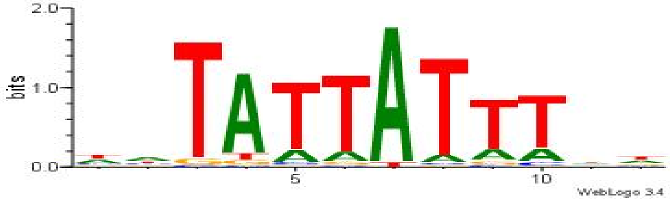
Alignment:

```
DDTATTATTTDH
-TTATWAWCTAA
```

Original motif Consensus sequence: HDAAATAATADD



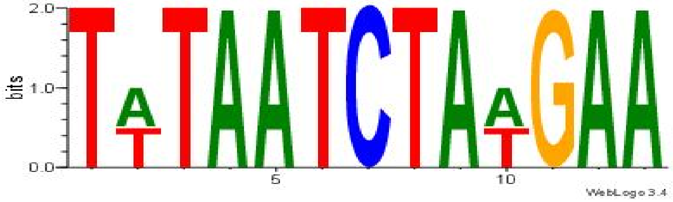
Reverse complement motif Consensus sequence: DDTATTATTTDH



Dataset #: 2 Motif ID: 19 Motif name: Motif 19

Original motif Consensus sequence: TTCWTAGATTAWA

Reverse complement motif Consensus sequence: TWTAATCTAWGA



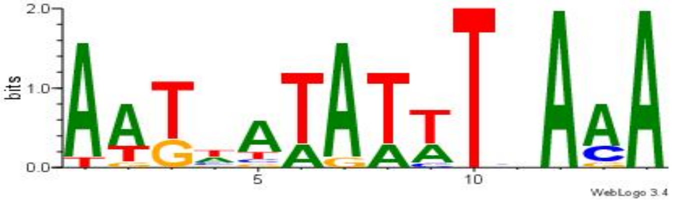
Best Matches for Motif ID 19 (Highest to Lowest)

Dataset #:	2
Motif ID:	9
Motif name:	Motif 9
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:	0.0641025

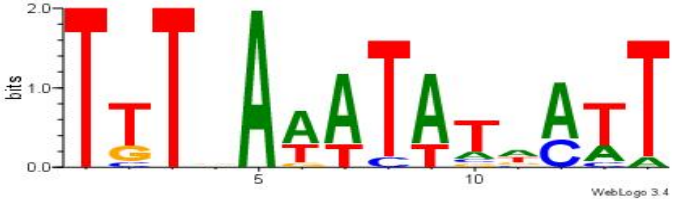
Alignment:

```
AATHATATWTHAAA
-TTCWTAGATTAWA
```

Original motif Consensus sequence: AATHATATWTHAAA



Reverse complement motif Consensus sequence: TTTDAWATATHAT

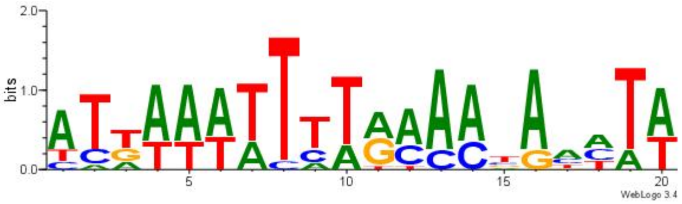


Dataset #: 5
Motif ID: 55
Motif name: TFM13
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 7
Number of overlap: 13
Similarity score: 0.0762821

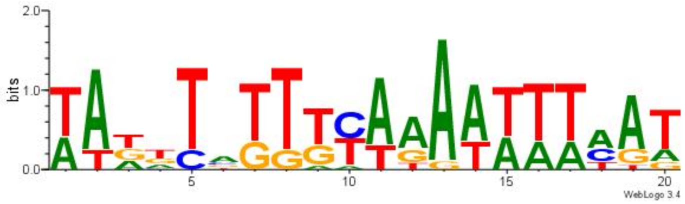
Alignment:

```
WAHHTVTTYKAAAAWTTRAT
------TTCWTAGATTAWA-
```

Original motif Consensus sequence: ATKAAWTTTTRMAABAHHTW



Reverse complement motif Consensus sequence: WAHHTVTTYKAAAAWTTRAT



Dataset #: 5
Motif ID: 56
Motif name: TFM11
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Backward
Position number: 12

Number of overlap: 13

Similarity score: 0.0810709

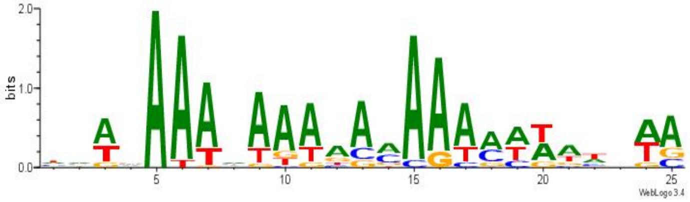
Alignment:

HDWVAAAHAAAAAMAAAMWWWHBWA

-TWTAATCTAWGAA-----------

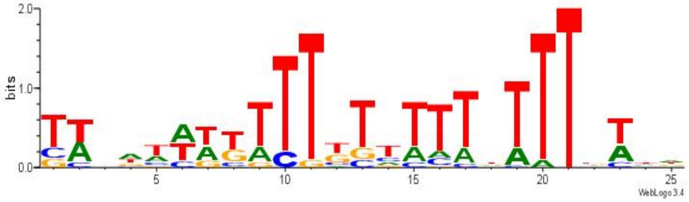
Original motif Consensus sequence:

HDWVAAAHAAAAAMAAAMWWWHBWA



Reverse complement motif Consensus sequence:

TWVHWWWYTTTYTTTTTHTTTVWBH



Dataset #: 5

Motif ID: 53

Motif name: TFM3

Matching format of first motif: Original Motif

Matching format of second motif: Reverse Complement

Direction: Backward

Position number: 1

Number of overlap: 13

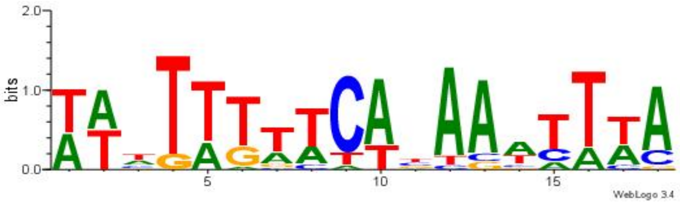
Similarity score: 0.0815851

Alignment:

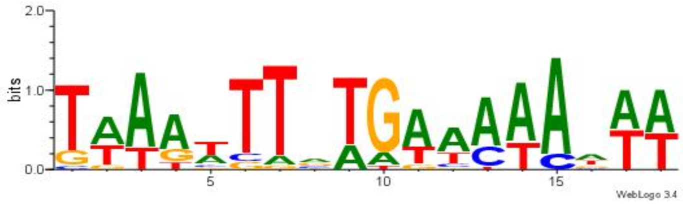
TWAAWTTVTGAAAAAHWW

-----TTCWTAGATTAWA

Original motif Consensus sequence: WWHTTTTTCABAAWTTWA



Reverse complement motif Consensus sequence: TWAAWTTVTGAAAAAHWW



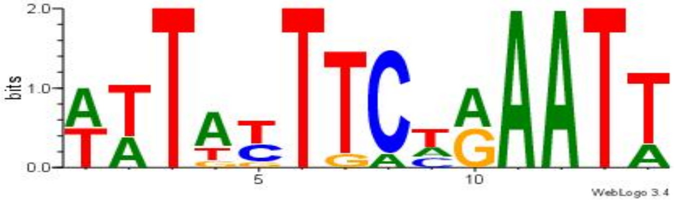
Dataset #:	2
Motif ID:	6
Motif name:	Motif 6
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	12
Similarity score:	0.5625

Alignment:

```
AATTYDGAARTAWW-
--TTCWTAGATTAWA
```

Original motif Consensus sequence: AATTYDGAARTAWW

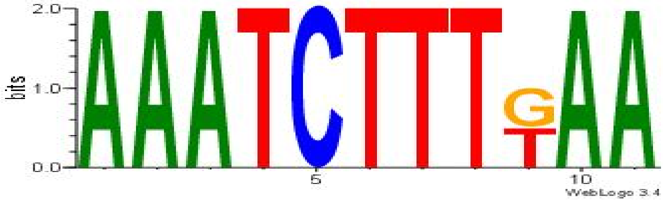
Reverse complement motif Consensus sequence: WWTAKTTCDKAAT



Dataset #: 2 Motif ID: 20 Motif name: Motif 20

Original motif Consensus sequence: TTMAAAGATTT

Reverse complement motif Consensus sequence: AAATCTTTYAA



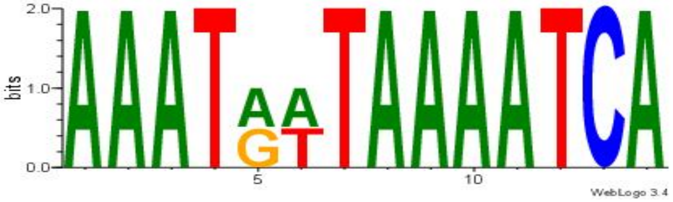
Best Matches for Motif ID 20 (Highest to Lowest)

Dataset #:	2
Motif ID:	8
Motif name:	Motif 8
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:	0.0681818

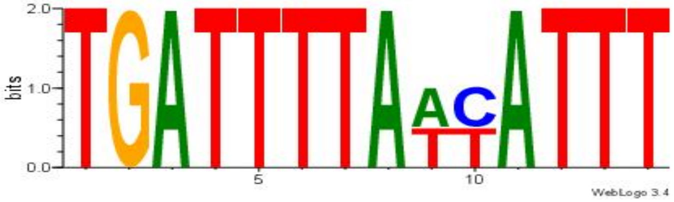
Alignment:

```
AAATRWTAAAATCA
---AAATCTTTYAA
```

Original motif Consensus sequence: AAATRWTAAAATCA



Reverse complement motif Consensus sequence: TGATTTTAWKATT



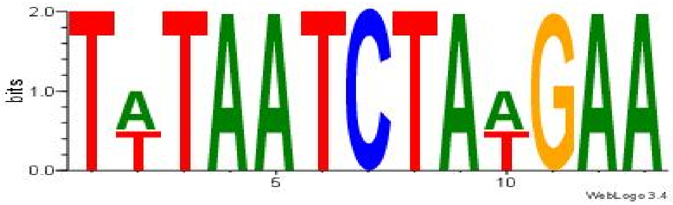
Dataset #: 2
Motif ID: 19
Motif name: Motif 19
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 1
Number of overlap: 11
Similarity score: 0.0681818

Alignment:

```
TTCWTAGATTAWA
TTMAAAGATTT--
```

Original motif Consensus sequence: TTCWTAGATTAWA

Reverse complement motif Consensus sequence: TWTAATCTAWGAA



Dataset #: 2
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

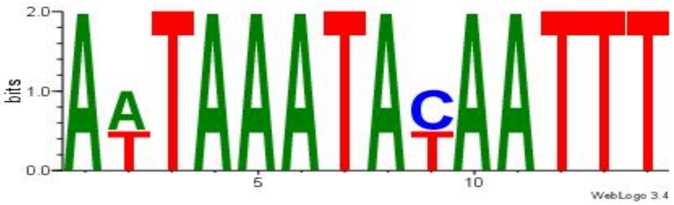
Number of overlap: 11

Similarity score: 0.102273

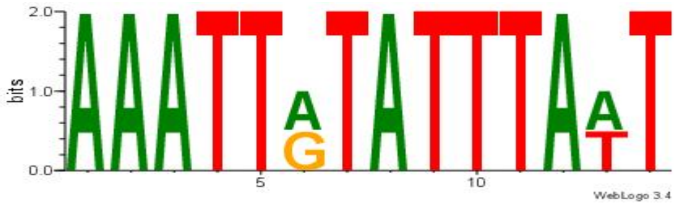
Alignment:

```
AAATTKTATTTAWT
-AAATCTTTYAA--
```

Original motif Consensus sequence: AWTAAATAYAATTT



Reverse complement motif Consensus sequence: AAATTKTATTTAW



Dataset #: 2

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: 11

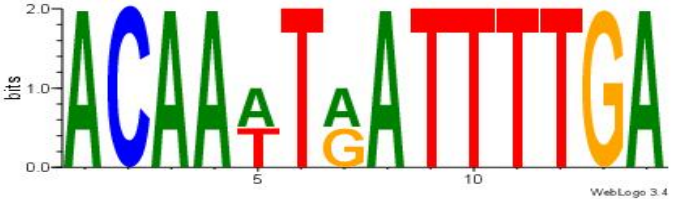
Similarity score: 0.102273

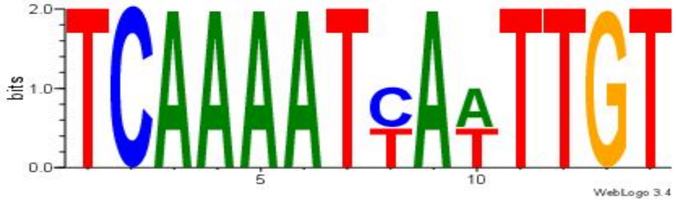
Alignment:

```
ACAAWTRATTTTGA
TTMAAAGATTT---
```

Original motif Consensus sequence: ACAAWTRATTTTGA

Reverse complement motif Consensus sequence: TCAAAATKAWTTG



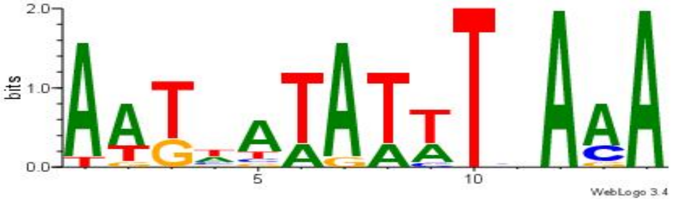


Dataset #:	2
Motif ID:	9
Motif name:	Motif 9
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	11
Similarity score:	0.106061

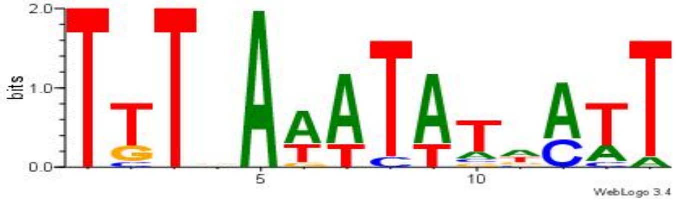
Alignment:

```
TTTDAWATATHATT
--TTMAAAGATTT-
```

Original motif Consensus sequence: AATHATATWTHAAA



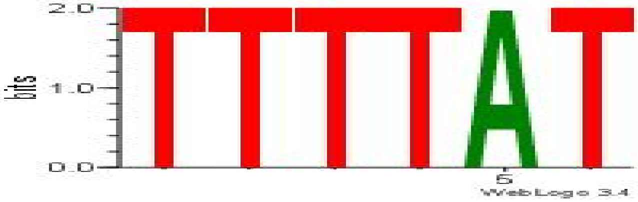
Reverse complement motif Consensus sequence: TTTDAWATATHAT



Dataset #: 2 Motif ID: 21 Motif name: Motif 21

Original motif Consensus sequence: ATAAAA

Reverse complement motif Consensus sequence: TTTTAT



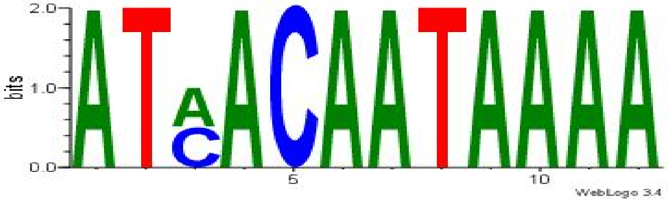
Best Matches for Motif ID 21 (Highest to Lowest)

Dataset #:	2
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:	1
Number of overlap:	6
Similarity score:	0

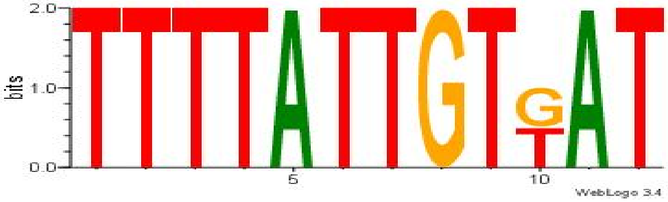
Alignment:

```
TTTTATTGTYAT
TTTTAT------
```

Original motif Consensus sequence: ATMACAATAAAA



Reverse complement motif Consensus sequence: TTTTATTGTYAT

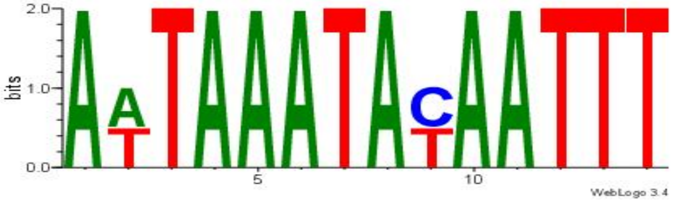


Dataset #:	2
Motif ID:	5
Motif name:	Motif 5
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	6
Number of overlap:	6
Similarity score:	0.0208333

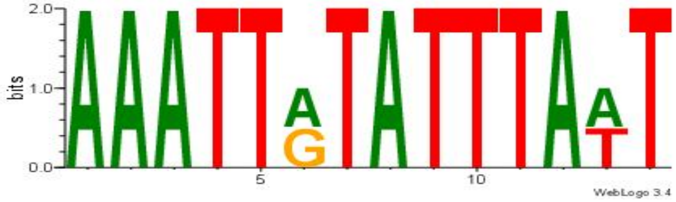
Alignment:

```
AAATTKTATTTAWT
---TTTTAT-----
```

Original motif Consensus sequence: AWTAAATAYAATTT



Reverse complement motif Consensus sequence: AAATTKTATTTAW



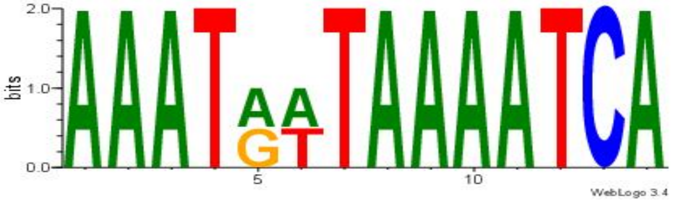
Dataset #:	2
Motif ID:	8
Motif name:	Motif 8
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	4
Number of overlap:	6

Similarity score: 0.0208333

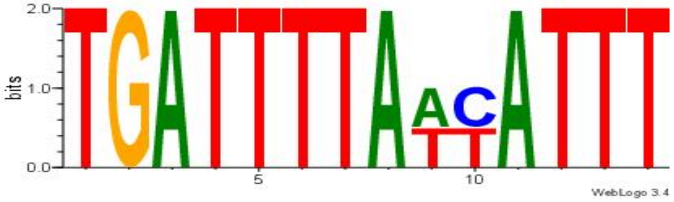
Alignment:

```
AAATRWTAAAATCA
-----ATAAAA---
```

Original motif Consensus sequence: AAATRWTAAAATCA



Reverse complement motif Consensus sequence: TGATTTTAWKATT



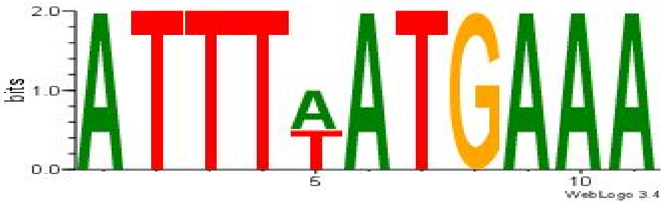
Dataset #: 2
Motif ID: 11
Motif name: Motif 11
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Backward
Position number: 2
Number of overlap: 6
Similarity score: 0.0208333

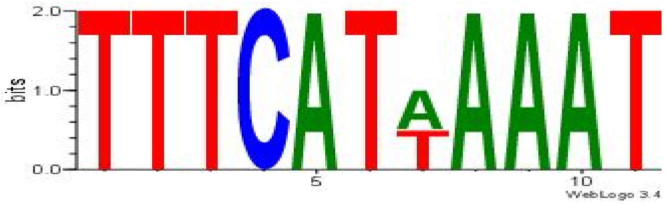
Alignment:

```
ATTTWATGAAA
----TTTTAT-
```

Original motif Consensus sequence: ATTTWATGAAA

Reverse complement motif Consensus sequence: TTTCATWAAAT



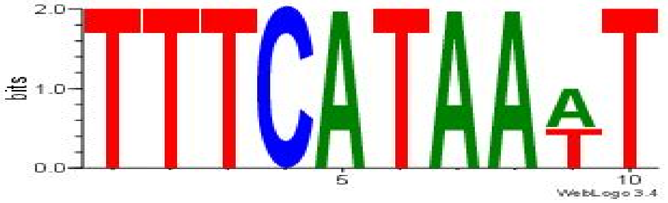


Dataset #:	2
Motif ID:	10
Motif name:	Motif 10
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	6
Similarity score:	0.0416667

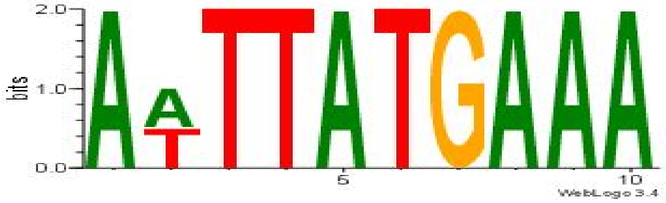
Alignment:

```
TTTCATAAWT
----TTTTAT
```

Original motif Consensus sequence: TTTCATAAWT

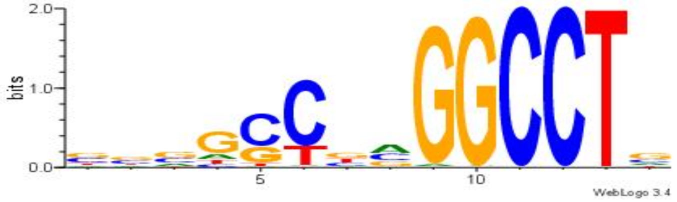


Reverse complement motif Consensus sequence: AWTTATGAAA

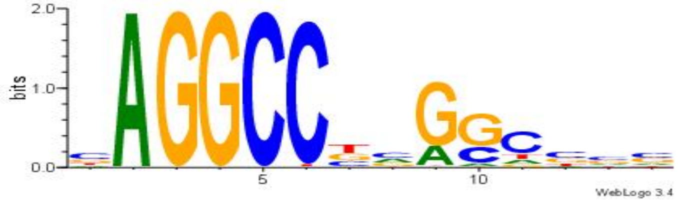


Dataset #: 3 **Motif ID: 22** **Motif name: Zfx**

Original motif Consensus sequence: BBVGCCBVGGCCTV



Reverse complement motif Consensus sequence: VAGGCCBBGGCV



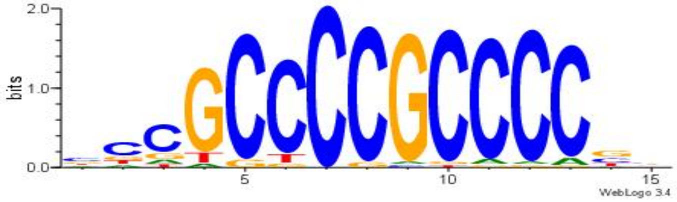
Best Matches for Motif ID 22 (Highest to Lowest)

Dataset #:	4
Motif ID:	38
Motif name:	cccGCCCCGCCCCsb
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:	0.0514008

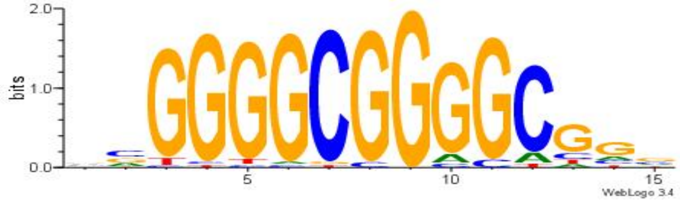
Alignment:

```
BCCGCCCCGCCCCBB
BBVGCCBVGGCCTV-
```

Original motif Consensus sequence: BCCGCCCCGCCCCBB



Reverse complement motif Consensus sequence: BBGGGGCGGGGCGGB

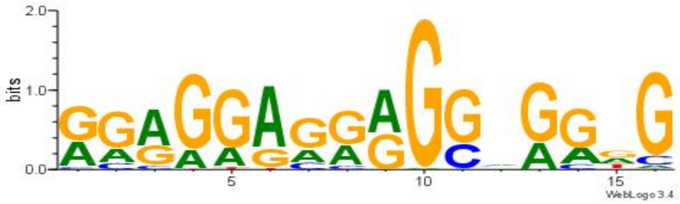


Dataset #:	5
Motif ID:	51
Motif name:	TFM2
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	14
Similarity score:	0.0590031

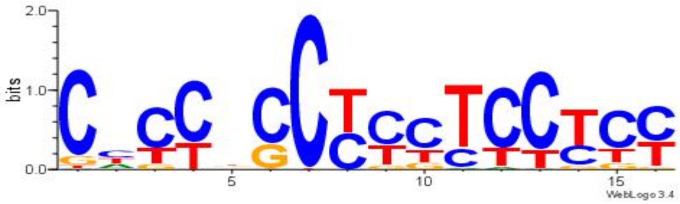
Alignment:

```
CHCCBCCKMCTCCKCM
-BBVGCCBVGGCCTV-
```

Original motif Consensus sequence: RGRGGAGRRGGHGGDG



Reverse complement motif Consensus sequence: CHCCBCCKMCTCCKCM

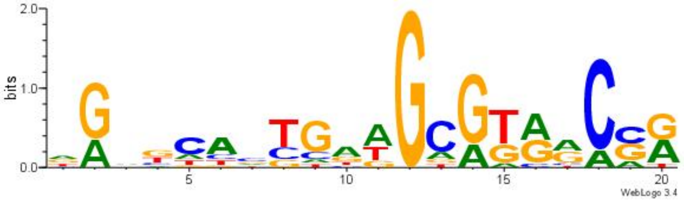


Dataset #:	3
Motif ID:	31
Motif name:	Pax5
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	5

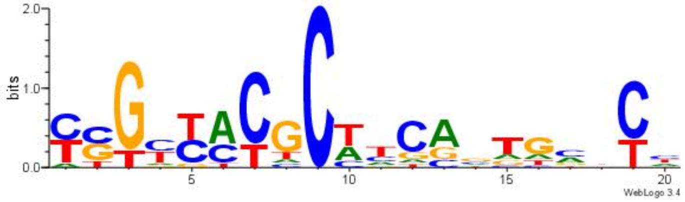
Number of overlap:	14
Similarity score:	0.0611182

Alignment:
DGVBCABTGDWGCGKRRCSR
--BBVGCCBVGGCCTV----

Original motif   Consensus sequence: DGVBCABTGDWGCGKRRCSR



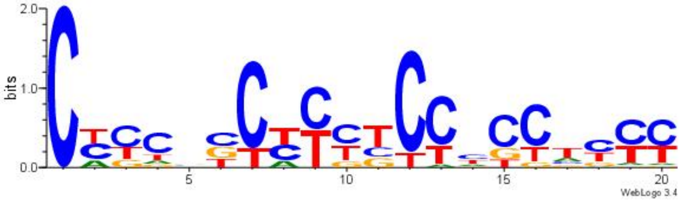
Reverse complement motif   Consensus sequence:
MSGKKRCGCWDCABTGBBCD



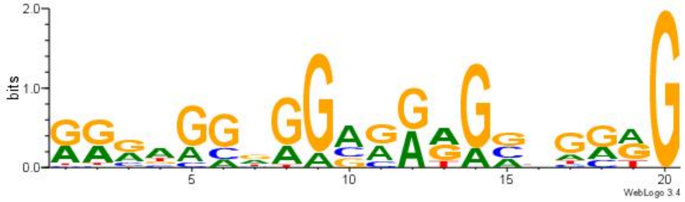
Dataset #:	5
Motif ID:	54
Motif name:	TFM12
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	6
Number of overlap:	14
Similarity score:	0.0629383

Alignment:
KKKAGGDGGAKKMGBBGKMG
-----VAGGCCBBGGCVBB-

Original motif   Consensus sequence: CYYCBBCYYYTCCHCCTYYY



Reverse complement motif   Consensus sequence: KKKAGGDGGAKKMGBBGKMG

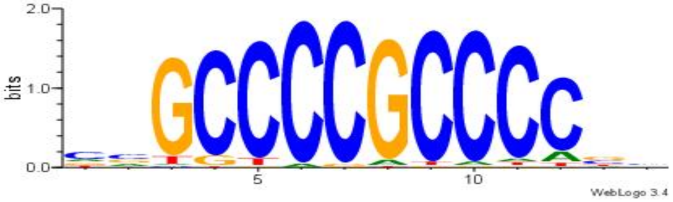


Dataset #:	4
Motif ID:	36
Motif name:	csGCCCCGCCCCsc
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	14
Similarity score:	0.0654514

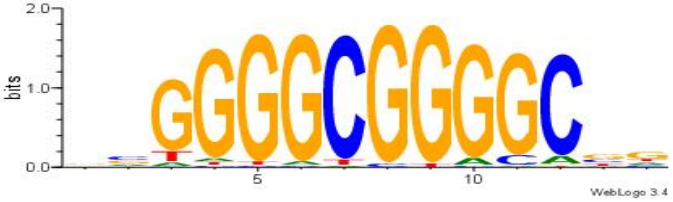
Alignment:

```
HVGCCCCGCCCCBB
VAGGCCBBGGCVBB
```

Original motif   Consensus sequence: HVGCCCCGCCCCBB



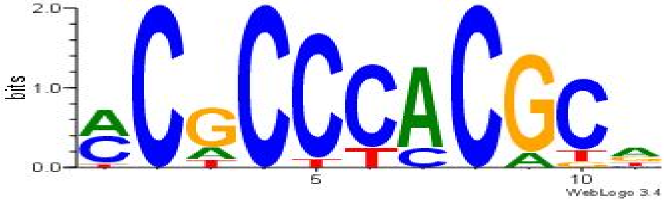
Reverse complement motif   Consensus sequence: BBGGGGCGGGGC



Dataset #: 3 **Motif ID: 23** **Motif name: Egr1**

Original motif Consensus sequence: HGCGTGGGCGK

Reverse complement motif Consensus sequence: YCGCCCACGCH



Best Matches for Motif ID 23 (Highest to Lowest)

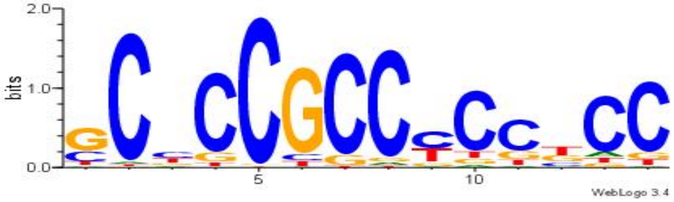
Dataset #:	5
Motif ID:	50
Motif name:	TFF11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	11
Similarity score:	0.0514701

Alignment:

```
GCVCCGCCMCCYCC
---YCGCCCACGCH
```

Original motif Consensus sequence: GGMGGRGGCGGVGC

Reverse complement motif Consensus sequence: GCVCCGCCMCCYC

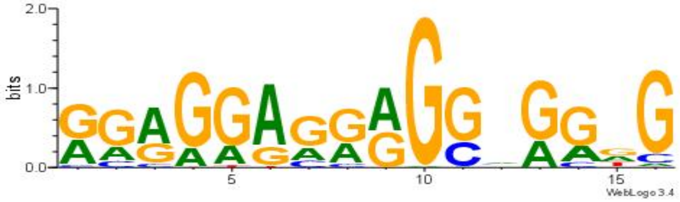


Dataset #: 5
Motif ID: 51
Motif name: TFM2
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 6
Number of overlap: 11
Similarity score: 0.0698683

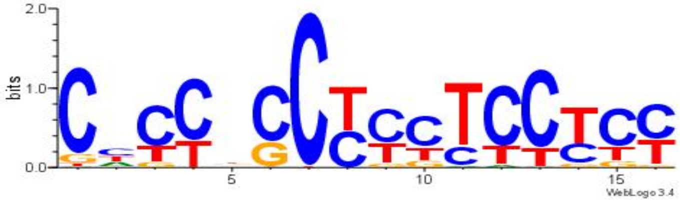
Alignment:

```
CHCCBCCKMCTCCKCM
-----YCGCCCACGCH
```

Original motif   Consensus sequence: RGRGGAGRRGGHGGDG



Reverse complement motif   Consensus sequence: CHCCBCCKMCTCCKCM



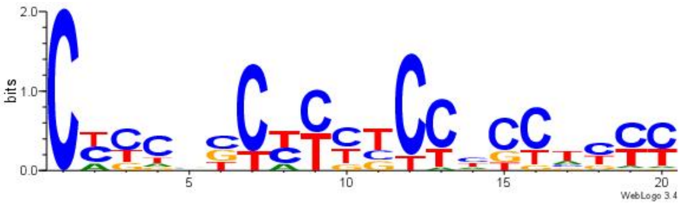
Dataset #: 5
Motif ID: 54
Motif name: TFM12
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward

Position number:	9
Number of overlap:	11
Similarity score:	0.0718056

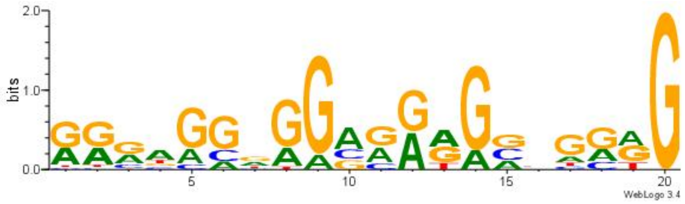
Alignment:

```
KKKAGGDGGAKKMGBBGKMG
-HGCGTGGGCGK--------
```

Original motif Consensus sequence: CYYCBBCYYYTCCHCCTYYY



Reverse complement motif Consensus sequence: KKKAGGDGGAKKMGBBGKMG

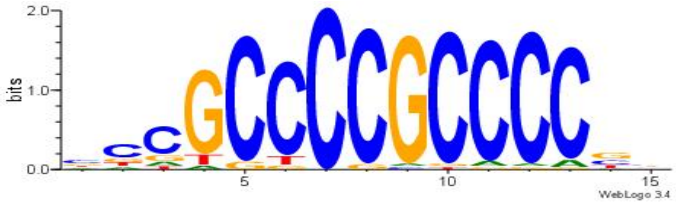


Dataset #:	4
Motif ID:	38
Motif name:	cccGCCCCGCCCCsb
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	5
Number of overlap:	11
Similarity score:	0.0730967

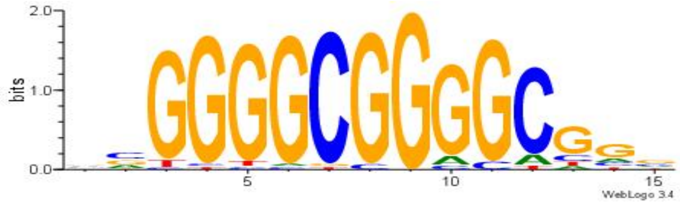
Alignment:

```
BBGGGGCGGGGCGGB
----HGCGTGGGCGK
```

Original motif Consensus sequence: BCCGCCCCGCCCCBB



Reverse complement motif Consensus sequence: BBGGGGCGGGGCGGB

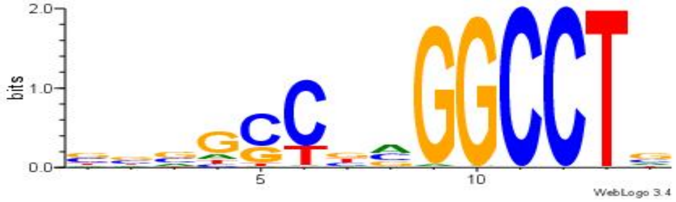


Dataset #:	3
Motif ID:	22
Motif name:	Zfx
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	11
Similarity score:	0.0764878

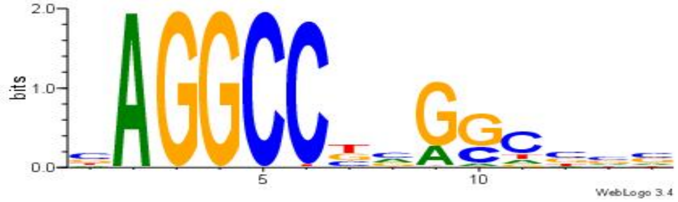
Alignment:

```
BBVGCCBVGGCCTV
--HGCGTGGGCGK-
```

Original motif Consensus sequence: BBVGCCBVGGCCTV

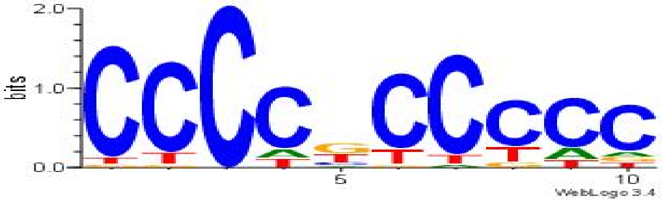


Reverse complement motif Consensus sequence: VAGGCCBBGGCV

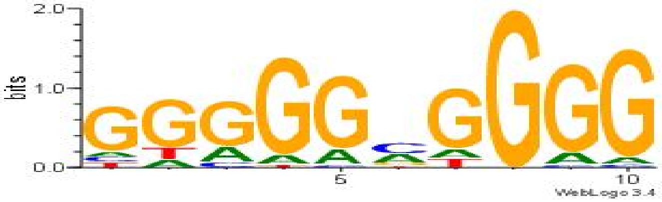


Dataset #: 3 **Motif ID: 24** **Motif name: SP1**

Original motif Consensus sequence: CCCCKCCCCC



Reverse complement motif Consensus sequence: GGGGGYGGGG



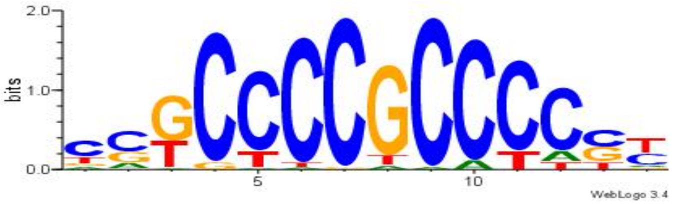
Best Matches for Motif ID 24 (Highest to Lowest)

Dataset #:	2
Motif ID:	7
Motif name:	Motif 7
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	10
Similarity score:	0.00451594

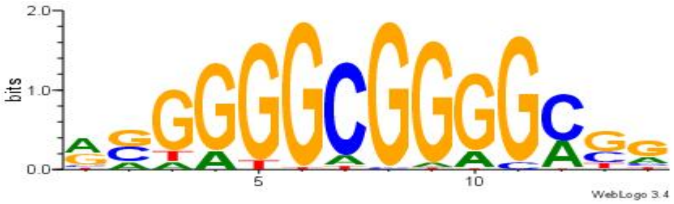
Alignment:

```
MSGGGGCGGGGYSG
-GGGGGYGGGG---
```

Original motif Consensus sequence: CSKCCCCGCCCCSY



Reverse complement motif Consensus sequence: MSGGGGCGGGGY

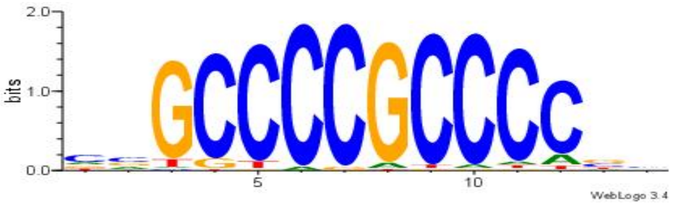


Dataset #:	4
Motif ID:	36
Motif name:	csGCCCCGCCCCsc
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	10
Similarity score:	0.00965796

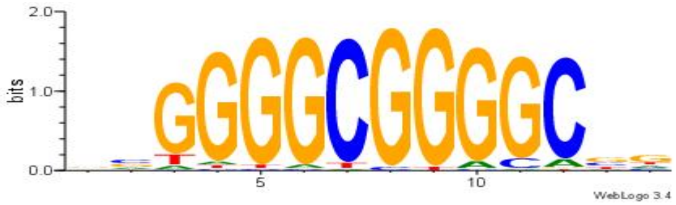
Alignment:

```
BBGGGGCGGGGCVD
-GGGGGYGGGG---
```

Original motif Consensus sequence: HVGCCCCGCCCCBB



Reverse complement motif Consensus sequence: BBGGGGCGGGGC

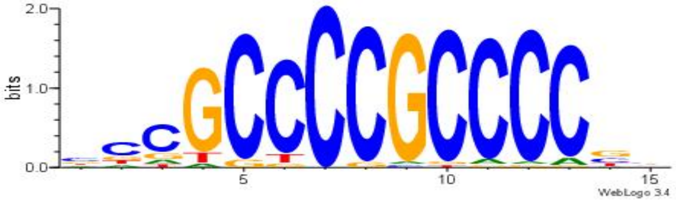


Dataset #:	4
Motif ID:	38
Motif name:	cccGCCCCGCCCCsb
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	5

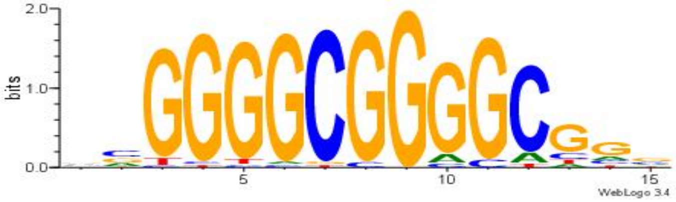
Number of overlap: 10
Similarity score: 0.0127292

Alignment:
BCCGCCCCGCCCCBB
----CCCCKCCCCC-

Original motif Consensus sequence: BCCGCCCCGCCCCBB



Reverse complement motif Consensus sequence: BBGGGGCGGGGCGGB

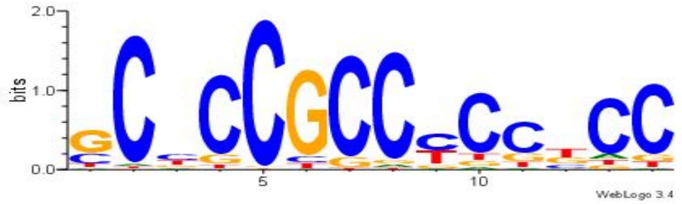


Dataset #: 5
Motif ID: 50
Motif name: TFF11
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 4
Number of overlap: 10
Similarity score: 0.0174405

Alignment:
GGMGGRGGCGGVGC
---GGGGGYGGGG-

Original motif Consensus sequence: GGMGGRGGCGGVGC

Reverse complement motif Consensus sequence: GCVCCGCCMCCY

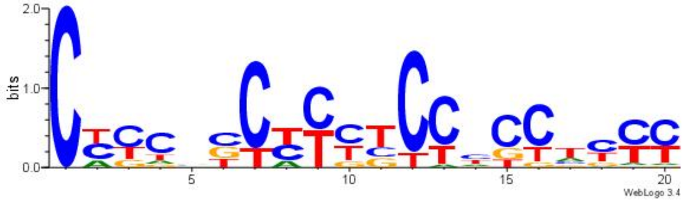


Dataset #:	5
Motif ID:	54
Motif name:	TFM12
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	7
Number of overlap:	10
Similarity score:	0.0301548

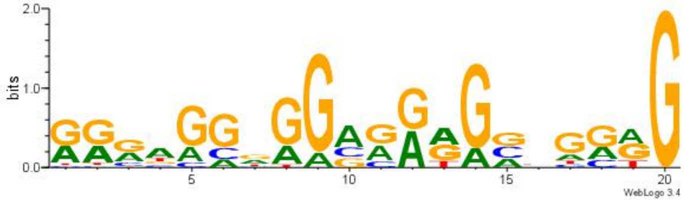
Alignment:

```
CYYCBBCYYYTCCHCCTYYY
------CCCCKCCCCC----
```

Original motif   Consensus sequence: CYYCBBCYYYTCCHCCTYYY

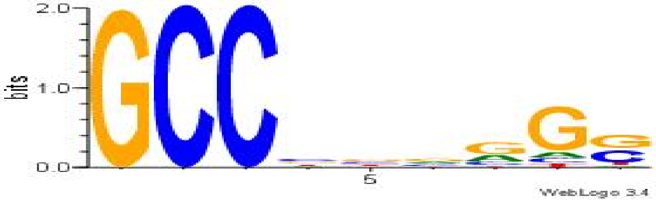


Reverse complement motif   Consensus sequence: KKKAGGDGGAKKMGBBGKMG

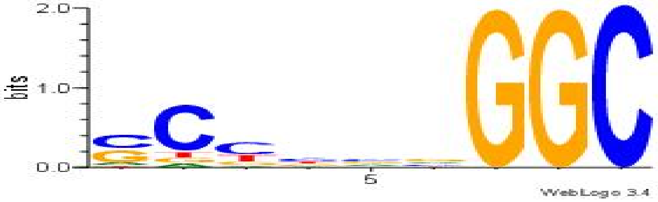


Dataset #: 3   **Motif ID: 25**   **Motif name: TFAP2A**

Original motif Consensus sequence: GCCBBVRGS



Reverse complement motif Consensus sequence: SCMVBBGGC



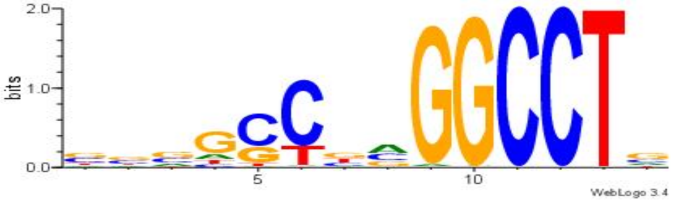
Best Matches for Motif ID 25 (Highest to Lowest)

Dataset #:	3
Motif ID:	22
Motif name:	Zfx
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	9
Similarity score:	0.0131247

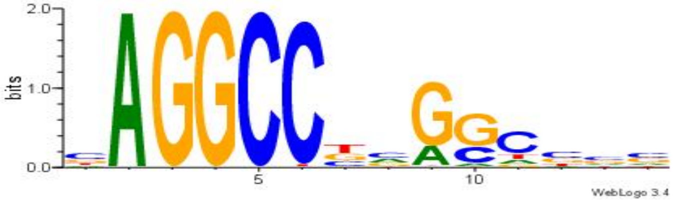
Alignment:

```
BBVGCCBVGGCCTV
---SCMVBBGGC--
```

Original motif Consensus sequence: BBVGCCBVGGCCTV



Reverse complement motif Consensus sequence: VAGGCCBBGGCV

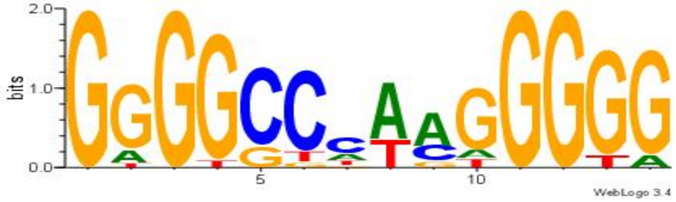


Dataset #:	3
Motif ID:	30
Motif name:	PLAG1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	4
Number of overlap:	9
Similarity score:	0.0414588

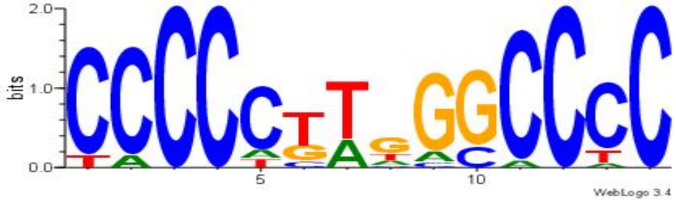
Alignment:

```
GGGGCCCAAGGGGG
---GCCBBVRGS--
```

Original motif Consensus sequence: GGGGCCCAAGGGGG



Reverse complement motif Consensus sequence: CCCCCTTGGGCCC

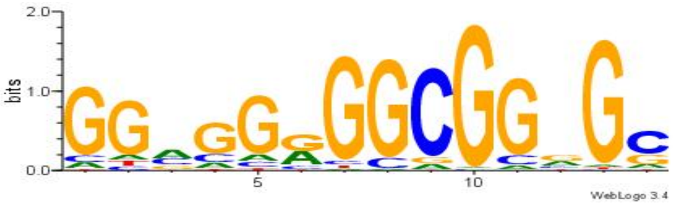


Dataset #:	5
Motif ID:	50
Motif name:	TFF11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	9

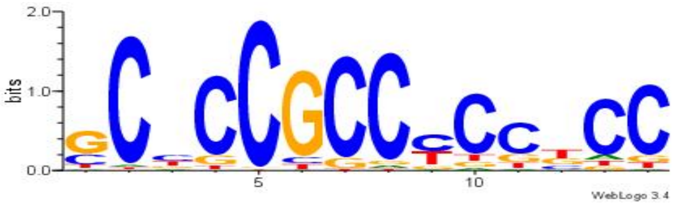
Similarity score: 0.0415732

Alignment:
GGMGGRGGCGGVGC
SCMVBBGGC-----

Original motif Consensus sequence: GGMGGRGGCGGVGC



Reverse complement motif Consensus sequence: GCVCCGCCMCCYC



Dataset #: 3
Motif ID: 33
Motif name: Mycn
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 2
Number of overlap: 9
Similarity score: 0.0550803

Alignment:
HSCACGTGGC
-SCMVBBGGC

Original motif Consensus sequence: HSCACGTGGC

Reverse complement motif Consensus sequence: GCCACGTGSD

Dataset #:	5
Motif ID:	48
Motif name:	TFW3
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:	0.0552877

Alignment:

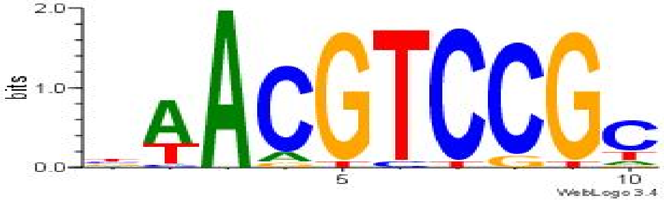
```
CGGCYBCGCG
-GCCBBVRGS
```

Original motif Consensus sequence: CGGCYBCGCG

Reverse complement motif Consensus sequence: CGCGBMGCCG

Dataset #: 3 Motif ID: 26 Motif name: MIZF

Original motif Consensus sequence: BAACGTCCGC



Reverse complement motif Consensus sequence: GCGGACGTTV

Best Matches for Motif ID 26 (Highest to Lowest)

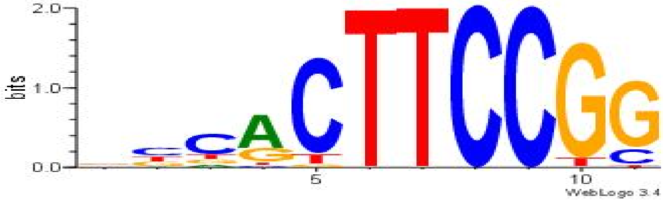
Dataset #:	3
Motif ID:	35
Motif name:	GABPA
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	10
Similarity score:	0.0459305

Alignment:

```
CCGGAAGTGVV
GCGGACGTTV-
```

Original motif Consensus sequence: CCGGAAGTGVV

Reverse complement motif Consensus sequence: VVCACTTCCGG

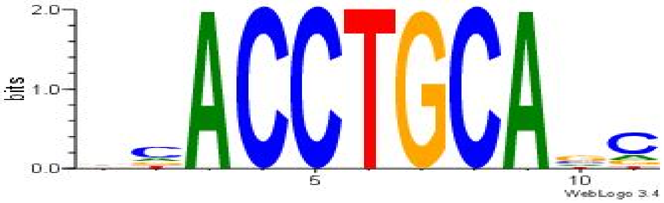


Dataset #:	4
Motif ID:	40
Motif name:	kcACCTGCAgc
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	10
Similarity score:	0.0778314

Alignment:

```
BCACCTGCABC
BAACGTCCGC-
```

Original motif   Consensus sequence: BCACCTGCABC



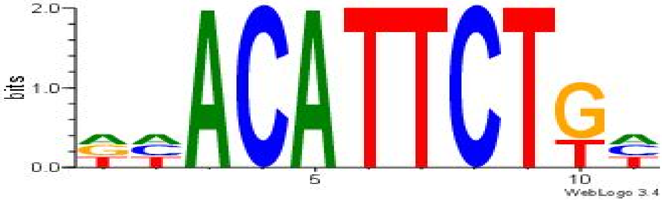
Reverse complement motif   Consensus sequence: GBTGCAGGTGB

Dataset #:	4
Motif ID:	44
Motif name:	dhACATTCTkh
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: 0.0794339

Alignment:
`DHACATTCTGH`
`BAACGTCCGC-`

Original motif Consensus sequence: DHACATTCTGH



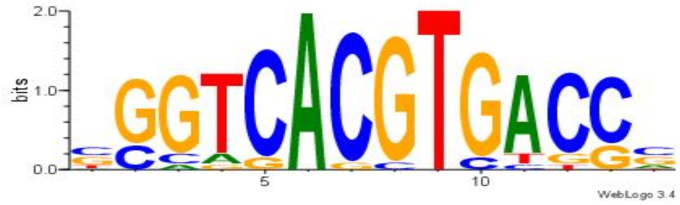
Reverse complement motif Consensus sequence: HCAGAATGTHD

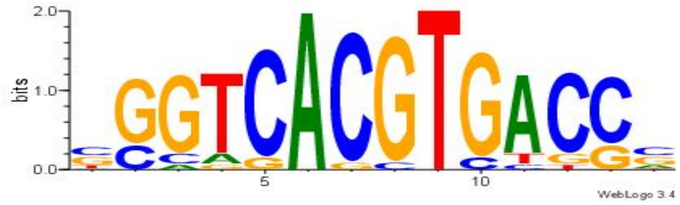
Dataset #:	4
Motif ID:	42
Motif name:	sSGTCACGTGACSs
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	10
Similarity score:	0.0804061

Alignment:
`SGGTCACGTGACCS`
`---BAACGTCCGC-`

Original motif Consensus sequence: SGGTCACGTGACCS

Reverse complement motif Consensus sequence: SGGTCACGTGACC





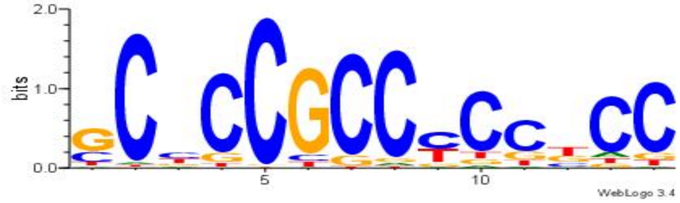
Dataset #:	5
Motif ID:	50
Motif name:	TFF11
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	10
Similarity score:	0.0861006

Alignment:

```
GCVCCGCCMCCYCC
-BAACGTCCGC---
```

Original motif Consensus sequence: GGMGGRGGCGGVGC

Reverse complement motif Consensus sequence: GCVCCGCCMCCYC



Dataset #: 3 Motif ID: 27 Motif name: Klf4

Original motif Consensus sequence: DGGGYGKGGC

Reverse complement motif Consensus sequence: GCCYCMCCCD

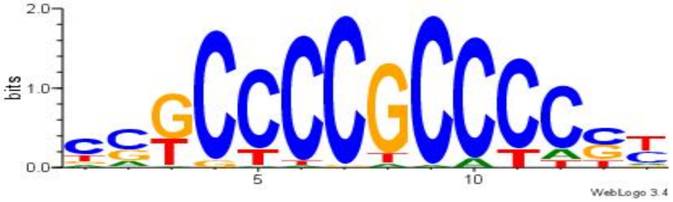
Best Matches for Motif ID 27 (Highest to Lowest)

Dataset #:	2
Motif ID:	7
Motif name:	Motif 7
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:	0.0152457

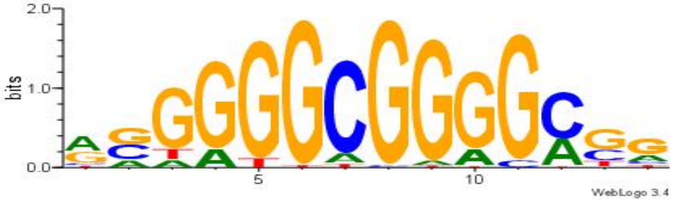
Alignment:

```
CSKCCCCGCCCCSY
--GCCYCMCCCD--
```

Original motif Consensus sequence: CSKCCCCGCCCCSY



Reverse complement motif Consensus sequence: MSGGGGCGGGGY

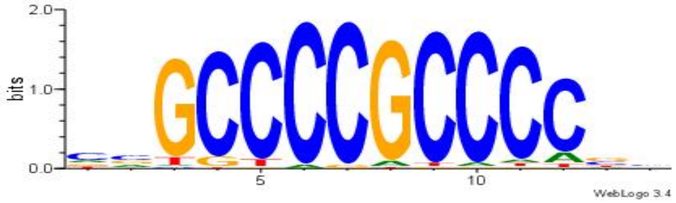


Dataset #:	4
Motif ID:	36
Motif name:	csGCCCCGCCCCsc
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	10
Similarity score:	0.0160185

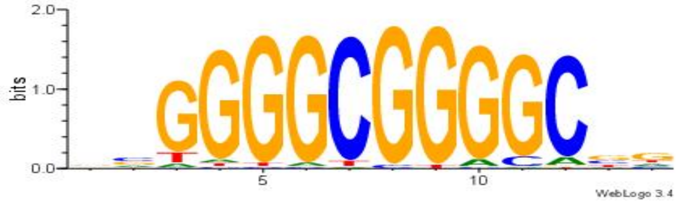
Alignment:

```
BBGGGGCGGGGCVD
--DGGGYGKGGC--
```

Original motif   Consensus sequence: HVGCCCCGCCCCBB



Reverse complement motif   Consensus sequence: BBGGGGCGGGGC



Dataset #:	4
Motif ID:	38
Motif name:	cccGCCCCGCCCCsb
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	10

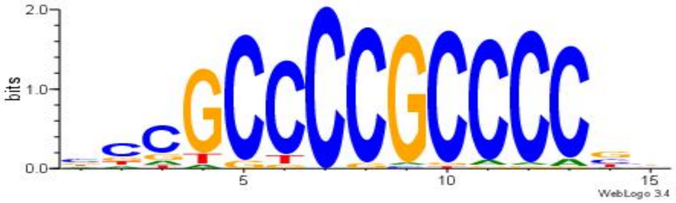
Similarity score:	0.0194893

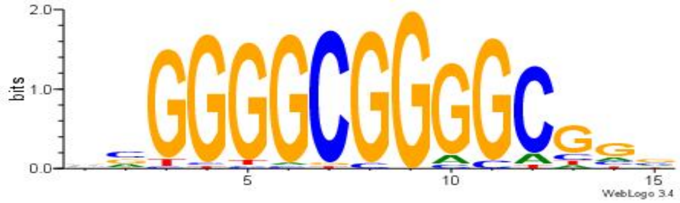
Alignment:

```
BBGGGGCGGGGCGGB
--DGGGYGKGGC---
```

Original motif Consensus sequence: BCCGCCCCGCCCCBB

Reverse complement motif Consensus sequence: BBGGGGCGGGGCGGB





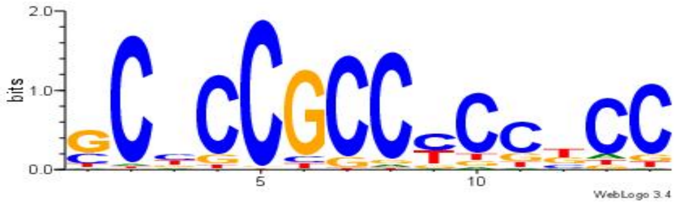
Dataset #:	5
Motif ID:	50
Motif name:	TFF11
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	5
Number of overlap:	10
Similarity score:	0.0402906

Alignment:

```
GGMGGRGGCGGVGC
----DGGGYGKGGC
```

Original motif Consensus sequence: GGMGGRGGCGGVGC

Reverse complement motif Consensus sequence: GCVCCGCCMCCYC



Dataset #: 5

Motif ID: 54

Motif name: TFM12

Matching format of first motif: Reverse Complement

Matching format of second motif: Original Motif

Direction: Backward

Position number: 7

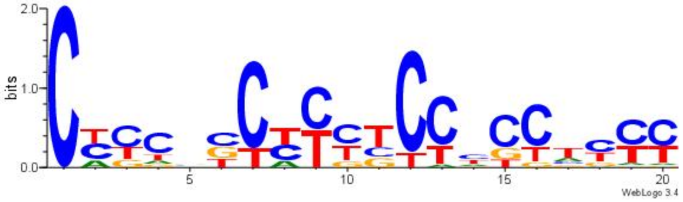
Number of overlap: 10

Similarity score: 0.0556427

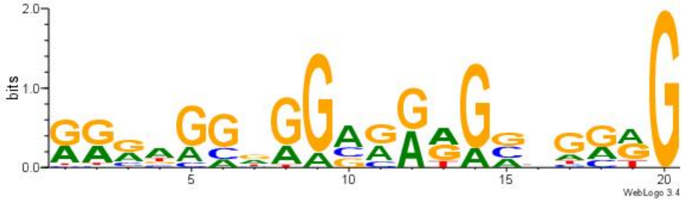
Alignment:

```
CYYCBBCYYYTCCHCCTYYY
----GCCYCMCCCD------
```

Original motif Consensus sequence: CYYCBBCYYYTCCHCCTYYY



Reverse complement motif Consensus sequence: KKKAGGDGGAKKMGBBGKMG



Dataset #: 3 Motif ID: 28 Motif name: E2F1

Original motif Consensus sequence: TTTSGCGC

Reverse complement motif Consensus sequence: GCGCSAAA

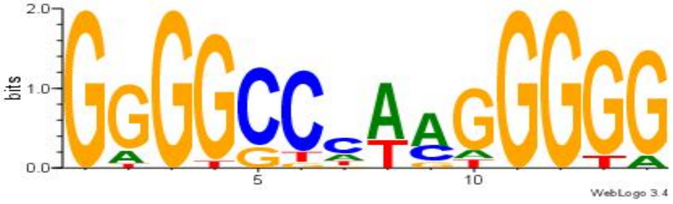
Best Matches for Motif ID 28 (Highest to Lowest)

Dataset #:	3
Motif ID:	30
Motif name:	PLAG1
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:	0.0568827

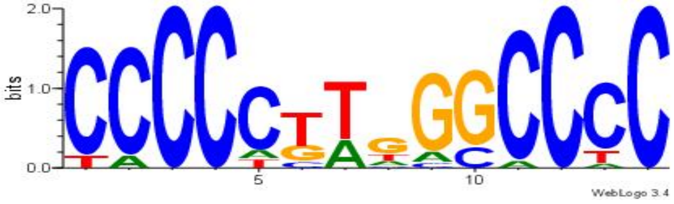
Alignment:

```
GGGGCCCAAGGGGG
-GCGCSAAA-----
```

Original motif Consensus sequence: GGGGCCCAAGGGGG



Reverse complement motif Consensus sequence: CCCCCTTGGGCCC



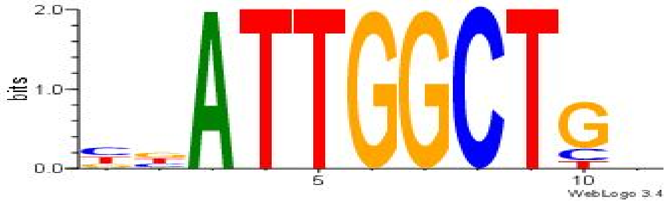
Dataset #: 4
Motif ID: 39
Motif name: kCAGCCAATmr
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Backward
Position number: 3
Number of overlap: 8
Similarity score: 0.0624791

Alignment:

```
DCAGCCAATVR
-GCGCSAAA--
```

Original motif Consensus sequence: DCAGCCAATVR

Reverse complement motif Consensus sequence: MBATTGGCTGH



Dataset #: 5
Motif ID: 50
Motif name: TFF11
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 4
Number of overlap: 8

Similarity score: 0.0781129

Alignment:

```
GCVCCGCCMCCYCC
---GCGCSAAA---
```

Original motif Consensus sequence: GGMGGRGGCGGVGC

Reverse complement motif Consensus sequence: GCVCCGCCMCCYC

Dataset #: 3

Motif ID: 23

Motif name: Egr1

Matching format of first motif: Reverse Complement

Matching format of second motif: Reverse Complement

Direction: Backward

Position number: 4

Number of overlap: 8

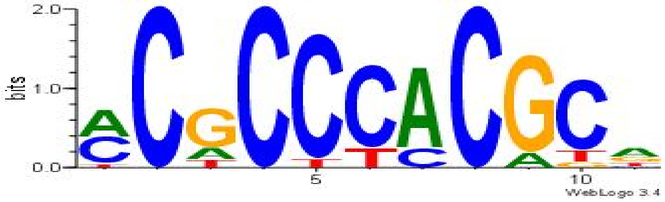
Similarity score: 0.0784105

Alignment:

```
YCGCCCACGCH
GCGCSAAA---
```

Original motif Consensus sequence: HGCGTGGGCGK

Reverse complement motif Consensus sequence: YCGCCCACGCH

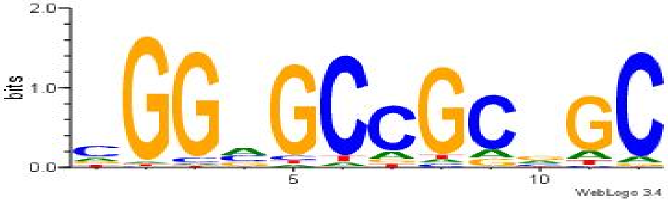


Dataset #:	5
Motif ID:	49
Motif name:	TFF1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	8
Similarity score:	0.0798986

Alignment:

```
CGGVGCCGCVGC
--GCGCSAAA--
```

Original motif Consensus sequence: CGGVGCCGCVGC



Reverse complement motif Consensus sequence: GCVGCGGCBCCG

Dataset #: 3 Motif ID: 29 Motif name: HIF1AARNT

Original motif Consensus sequence: VBACGTGV

Reverse complement motif Consensus sequence: VCACGTBV

Best Matches for Motif ID 29 (Highest to Lowest)

Dataset #:	3
Motif ID:	33
Motif name:	Mycn
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:	0.0123101

Alignment:

```
GCCACGTGSD
-VBACGTGV-
```

Original motif Consensus sequence: HSCACGTGGC

Reverse complement motif Consensus sequence: GCCACGTGSD

Dataset #: 3
Motif ID: 34
Motif name: Myc
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: 0.0144491

Alignment:
DCCACGTGCV
-VBACGTGV-

Original motif Consensus sequence: VGCACGTGGH

Reverse complement motif Consensus sequence: DCCACGTGCV

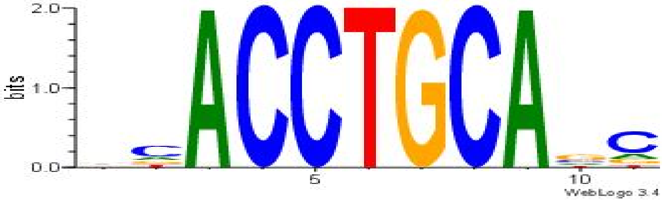
Dataset #: 4
Motif ID: 40
Motif name: kcACCTGCAgc
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 1
Number of overlap: 8

Similarity score: 0.0295473

Alignment:

```
GBTGCAGGTGB
---VCACGTBV
```

Original motif Consensus sequence: BCACCTGCABC



Reverse complement motif Consensus sequence: GBTGCAGGTGB

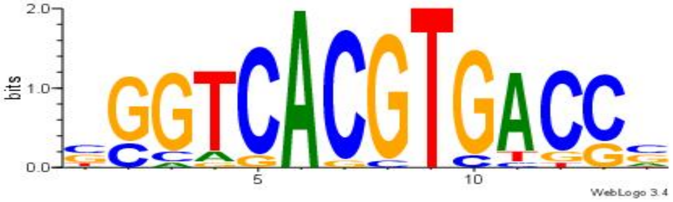
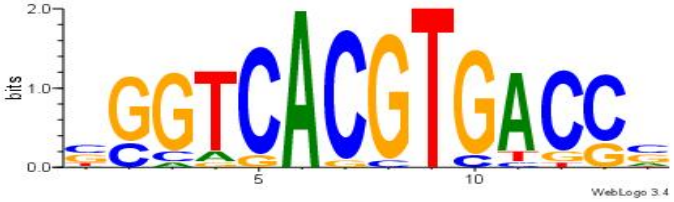
Dataset #:	4
Motif ID:	42
Motif name:	sSGTCACGTGACSs
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	4
Number of overlap:	8
Similarity score:	0.0314837

Alignment:

```
SGGTCACGTGACCS
---VCACGTBV---
```

Original motif Consensus sequence: SGGTCACGTGACCS

Reverse complement motif Consensus sequence: SGGTCACGTGAC

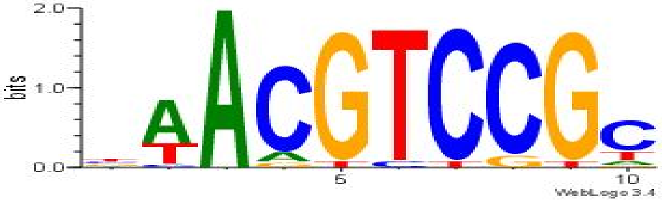



Dataset #: 3
Motif ID: 26
Motif name: MIZF
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 3
Number of overlap: 8
Similarity score: 0.0377204

Alignment:

```
GCGGACGTTV
--VCACGTBV
```

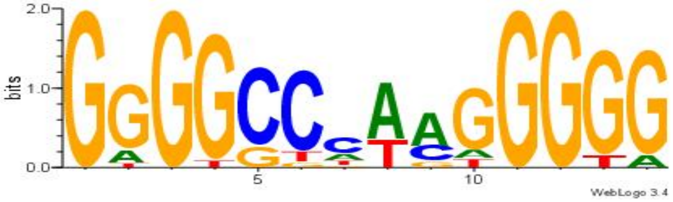
Original motif Consensus sequence: BAACGTCCGC



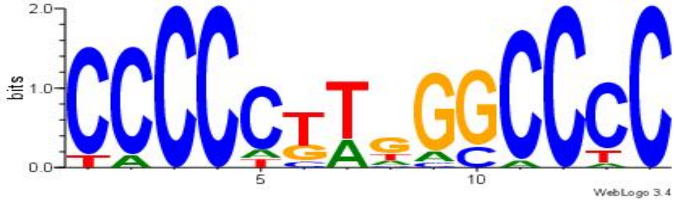
Reverse complement motif Consensus sequence: GCGGACGTTV

Dataset #: 3 Motif ID: 30 Motif name: PLAG1

Original motif Consensus sequence: GGGGCCCAAGGGGG



Reverse complement motif Consensus sequence: CCCCCTTGGGCCC



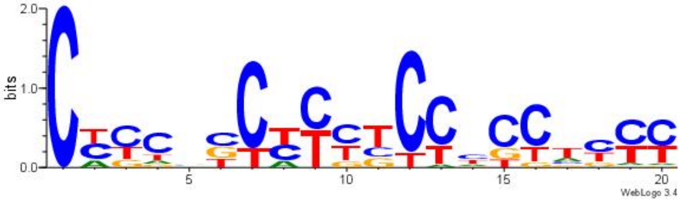
Best Matches for Motif ID 30 (Highest to Lowest)

Dataset #:	5
Motif ID:	54
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:	14
Similarity score:	0.0876918

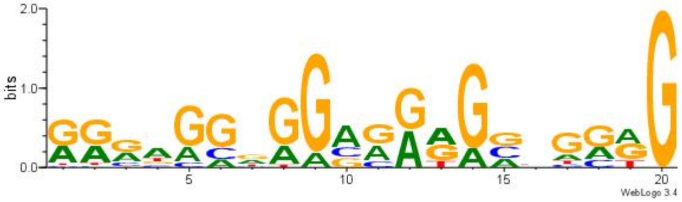
Alignment:

```
CYYCBBCYYYTCCHCCTYYY
-CCCCCTTGGGCCCC-----
```

Original motif Consensus sequence: CYYCBBCYYYTCCHCCTYYY



Reverse complement motif Consensus sequence: KKKAGGDGGAKKMGBBGKMG

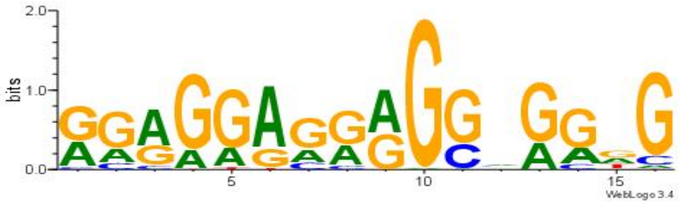


Dataset #: 5
Motif ID: 51
Motif name: TFM2
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 3
Number of overlap: 14
Similarity score: 0.0880716

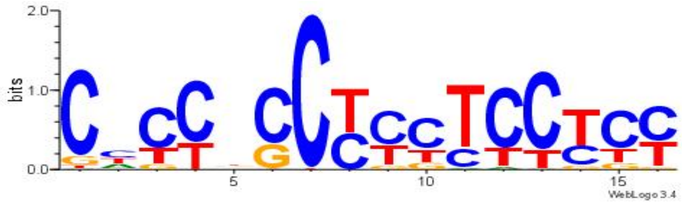
Alignment:

```
CHCCBCCKMCTCCKCM
--CCCCCTTGGGCCCC
```

Original motif Consensus sequence: RGRGGAGRRGGHGGDG



Reverse complement motif Consensus sequence: CHCCBCCKMCTCCKCM



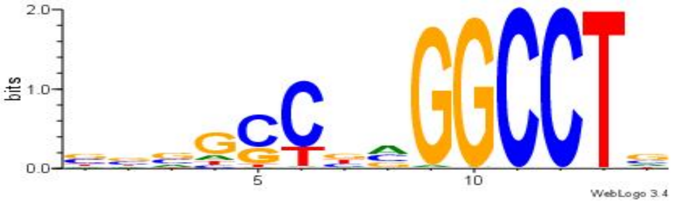
Dataset #: 3
Motif ID: 22
Motif name: Zfx
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 1

Number of overlap:	14
Similarity score:	0.0886295

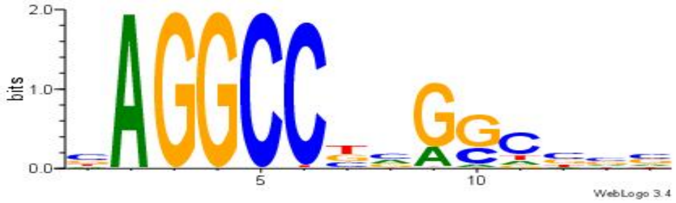
Alignment:

```
VAGGCCBBGGCVBB
GGGGCCCAAGGGGG
```

Original motif Consensus sequence: BBVGCCBVGGCCTV



Reverse complement motif Consensus sequence: VAGGCCBBGGCV



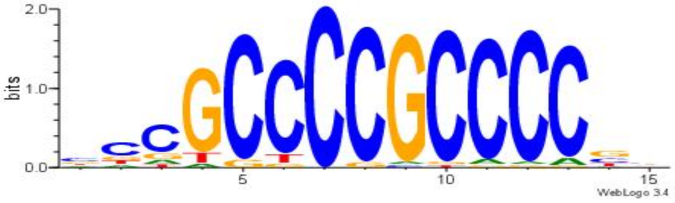
Dataset #:	4
Motif ID:	38
Motif name:	cccGCCCCGCCCCsb
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	14
Similarity score:	0.0904945

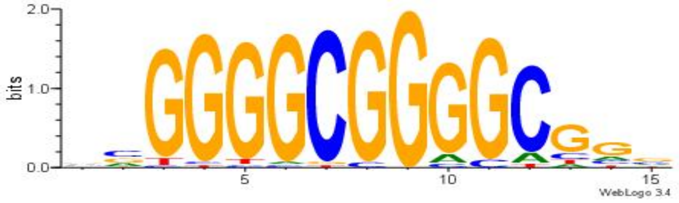
Alignment:

```
BCCGCCCCGCCCCBB
CCCCCTTGGGCCCC-
```

Original motif Consensus sequence: BCCGCCCCGCCCCBB

Reverse complement motif Consensus sequence: BBGGGGCGGGGCGGB



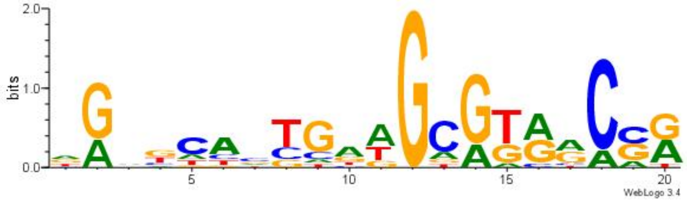


Dataset #:	3
Motif ID:	31
Motif name:	Pax5
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	14
Similarity score:	0.0943783

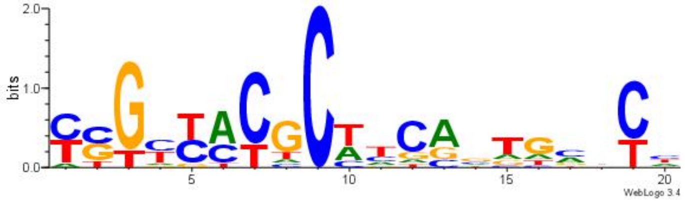
Alignment:

```
DGVBCABTGDWGCGKRRCSR
GGGGCCCAAGGGGG------
```

Original motif Consensus sequence: DGVBCABTGDWGCGKRRCSR

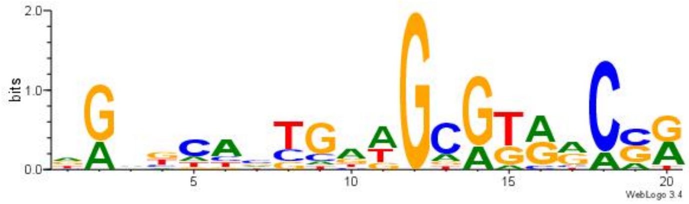


Reverse complement motif Consensus sequence: MSGKKRCGCWDCABTGBBCD

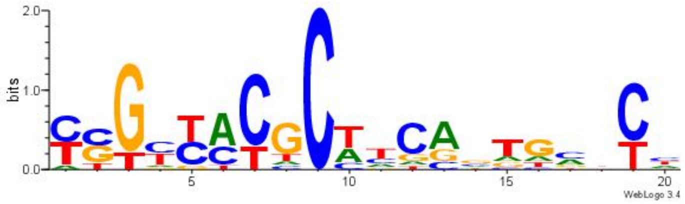


Dataset #: 3 Motif ID: 31 Motif name: Pax5

Original motif Consensus sequence: DGVBCABTGDWGCGKRRCSR



Reverse complement motif Consensus sequence: MSGKKRCGCWDCABTGBBCD



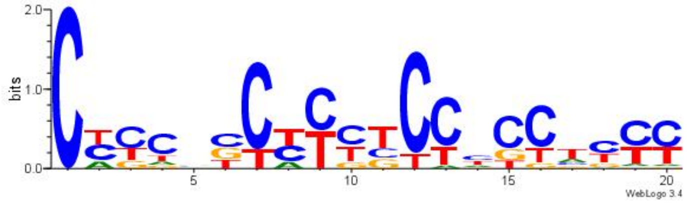
Best Matches for Motif ID 31 (Highest to Lowest)

Dataset #:	5
Motif ID:	54
Motif name:	TFM12
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	20
Similarity score:	0.0373929

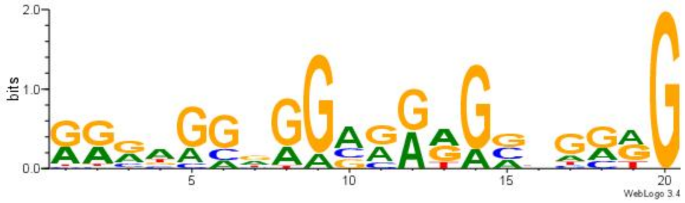
Alignment:

```
KKKAGGDGGAKKMGBBGKMG
DGVBCABTGDWGCGKRRCSR
```

Original motif Consensus sequence: CYYCBBCYYYTCCHCCTYYY



Reverse complement motif Consensus sequence: KKKAGGDGGAKKMGBBGKMG

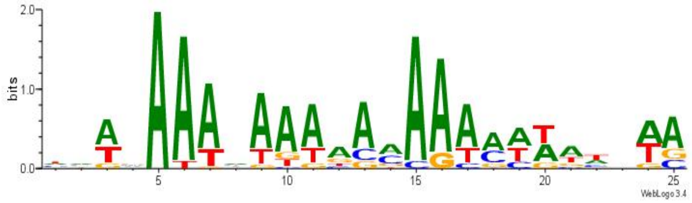


Dataset #: 5
Motif ID: 56
Motif name: TFM11
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 6
Number of overlap: 20
Similarity score: 0.0546306

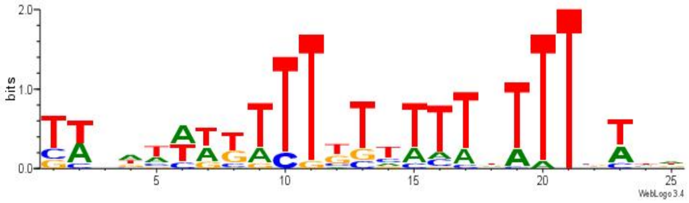
Alignment:

```
HDWVAAAHAAAAAMAAAMWWWHBWA
DGVBCABTGDWGCGKRRCSR-----
```

Original motif Consensus sequence:
HDWVAAAHAAAAAMAAAMWWWHBWA



Reverse complement motif Consensus sequence:
TWVHWWWYTTTYTTTTTHTTTVWBH



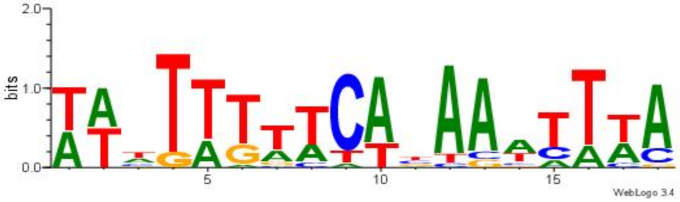
Dataset #: 5
Motif ID: 53
Motif name: TFM3
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward

Position number:	2
Number of overlap:	17
Similarity score:	1.5457

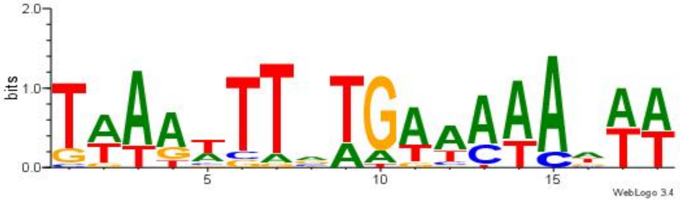
Alignment:

```
TWAAWTTVTGAAAAAHWW---
-DGVBCABTGDWGCGKRRCSR
```

Original motif Consensus sequence: WWHTTTTTCABAAWTTWA



Reverse complement motif Consensus sequence: TWAAWTTVTGAAAAAHWW

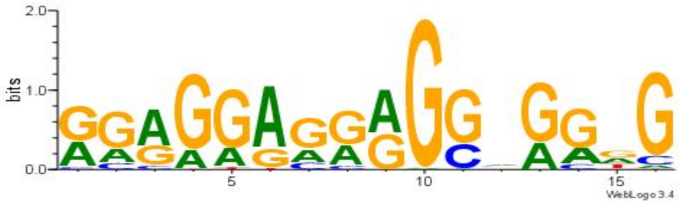


Dataset #:	5
Motif ID:	51
Motif name:	TFM2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	16
Similarity score:	2.0519

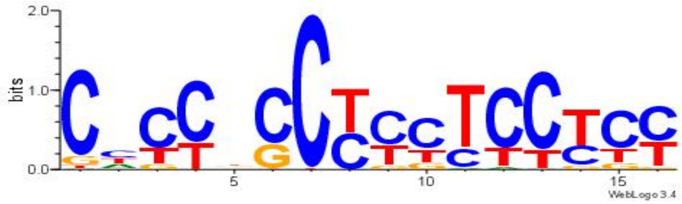
Alignment:

```
RGRGGAGRRGGHGGDG----
MSGKKRCGCWDCABTGBBCD
```

Original motif Consensus sequence: RGRGGAGRRGGHGGDG



Reverse complement motif Consensus sequence: CHCCBCCKMCTCCKCM

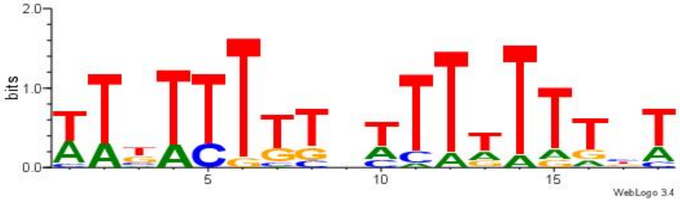


Dataset #:	5
Motif ID:	52
Motif name:	TFM1
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	16
Similarity score:	2.05456

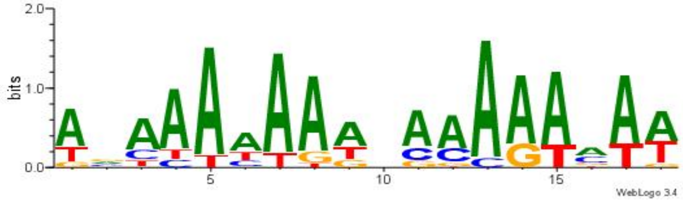
Alignment:

```
ABAAAAAAWHAAAAARAW----
--DGVBCABTGDWGCGKRRCSR
```

Original motif Consensus sequence: WTKTTTTTHWTTTTTTBT



Reverse complement motif Consensus sequence: ABAAAAAAWHAAAAARAW



Dataset #: 3 **Motif ID: 32** **Motif name: ArntAhr**

Original motif Consensus sequence: YGCGTG

Reverse complement motif Consensus sequence: CACGCM

Best Matches for Motif ID 32 (Highest to Lowest)

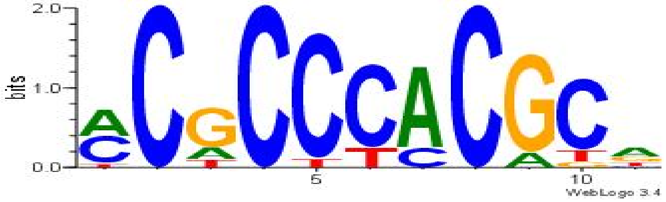
Dataset #:	3
Motif ID:	23
Motif name:	Egr1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	6
Similarity score:	0

Alignment:

```
HGCGTGGGCGK
YGCGTG-----
```

Original motif Consensus sequence: HGCGTGGGCGK

Reverse complement motif Consensus sequence: YCGCCCACGCH



Dataset #:	3
Motif ID:	29
Motif name:	HIF1AARNT
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	6
Similarity score:	0.0112447

Alignment:

```
VBACGTGV
-YGCGTG-
```

Original motif Consensus sequence: VBACGTGV

Reverse complement motif Consensus sequence: VCACGTBV

Dataset #:	3
Motif ID:	33
Motif name:	Mycn
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3

Number of overlap:	6
Similarity score:	0.0377949

Alignment:

```
GCCACGTGSD
--YGCGTG--
```

Original motif　Consensus sequence: HSCACGTGGC

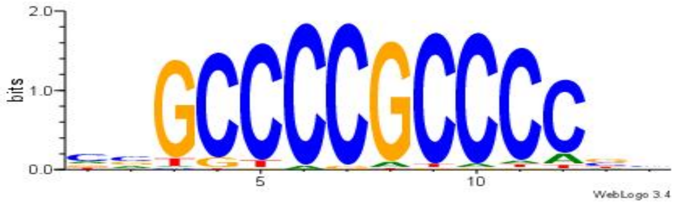
Reverse complement motif　Consensus sequence: GCCACGTGSD

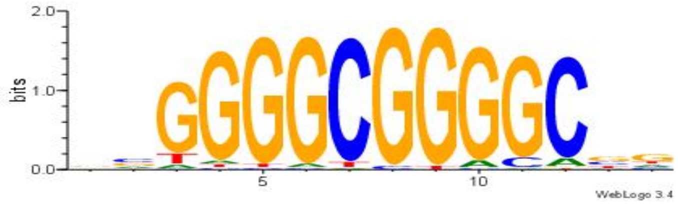
Dataset #:	4
Motif ID:	36
Motif name:	csGCCCCGCCCCsc
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	5
Number of overlap:	6
Similarity score:	0.0396403

Alignment:

```
HVGCCCCGCCCCBB
----CACGCM----
```

Original motif　Consensus sequence: HVGCCCCGCCCCBB　Reverse complement motif　Consensus sequence: BBGGGGCGGGGC





Dataset #: 3
Motif ID: 34
Motif name: Myc
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 3
Number of overlap: 6
Similarity score: 0.0399214

Alignment:

```
DCCACGTGCV
--YGCGTG--
```

Original motif Consensus sequence: VGCACGTGGH

Reverse complement motif Consensus sequence: DCCACGTGCV

Dataset #: 3 Motif ID: 33 Motif name: Mycn

Original motif Consensus sequence: HSCACGTGGC

Reverse complement motif Consensus sequence: GCCACGTGSD

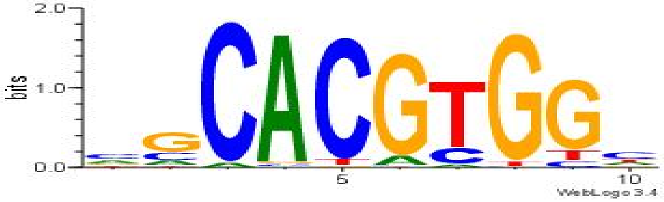
Best Matches for Motif ID 33 (Highest to Lowest)

Dataset #:	3
Motif ID:	34
Motif name:	Myc
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:

```
VGCACGTGGH
HSCACGTGGC
```

Original motif Consensus sequence: VGCACGTGGH



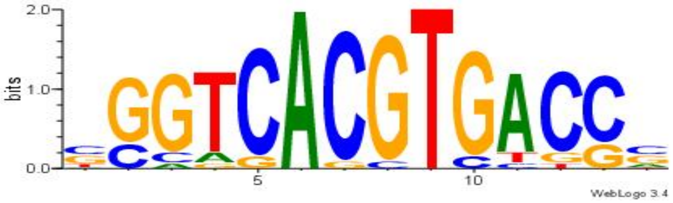
Reverse complement motif Consensus sequence: DCCACGTGCV

Dataset #: 4
Motif ID: 42
Motif name: sSGTCACGTGACSs
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: 0.0628441

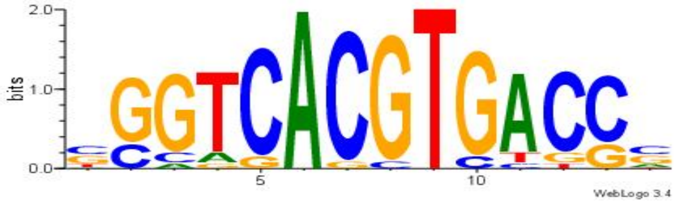
Alignment:

```
SGGTCACGTGACCS
--HSCACGTGGC--
```

Original motif Consensus sequence: SGGTCACGTGACCS



Reverse complement motif Consensus sequence: SGGTCACGTGACC



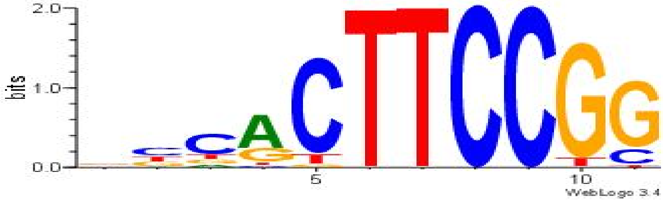
Dataset #: 3
Motif ID: 35
Motif name: GABPA
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 1
Number of overlap: 10

Similarity score:	0.0884396

Alignment:
VVCACTTCCGG
GCCACGTGSD-

Original motif Consensus sequence: CCGGAAGTGVV

Reverse complement motif Consensus sequence: VVCACTTCCGG

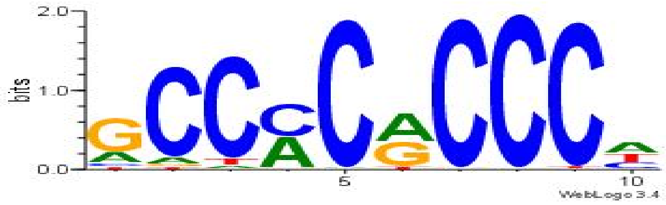


Dataset #:	3
Motif ID:	27
Motif name:	Klf4
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	10
Similarity score:	0.0893272

Alignment:
DGGGYGKGGC
HSCACGTGGC

Original motif Consensus sequence: DGGGYGKGGC

Reverse complement motif Consensus sequence: GCCYCMCCCD



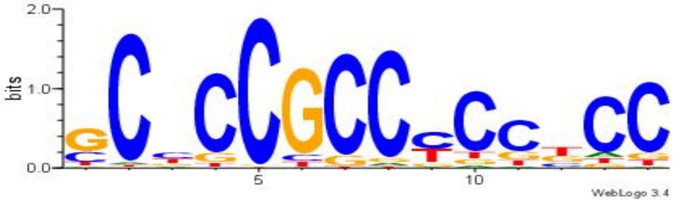
Dataset #:	5
Motif ID:	50
Motif name:	TFF11
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	10
Similarity score:	0.0895444

Alignment:

```
GGMGGRGGCGGVGC
--HSCACGTGGC--
```

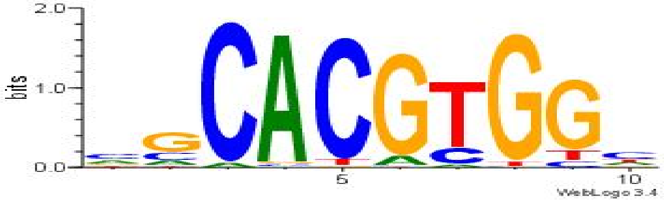
Original motif Consensus sequence: GGMGGRGGCGGVGC

Reverse complement motif Consensus sequence: GCVCCGCCMCCYC



Dataset #: 3 **Motif ID: 34** **Motif name: Myc**

Original motif Consensus sequence: VGCACGTGGH



Reverse complement motif Consensus sequence: DCCACGTGCV

Best Matches for Motif ID 34 (Highest to Lowest)

Dataset #:	3
Motif ID:	33
Motif name:	Mycn
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:

```
GCCACGTGSD
DCCACGTGCV
```

Original motif Consensus sequence: HSCACGTGGC

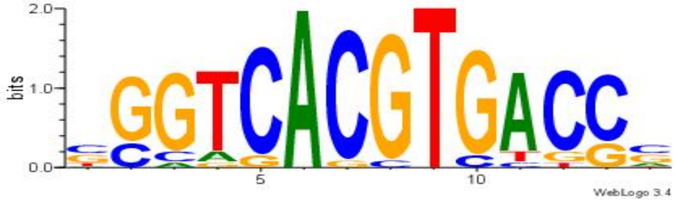
Reverse complement motif Consensus sequence: GCCACGTGSD

Dataset #: 4
Motif ID: 42
Motif name: sSGTCACGTGACSs
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: 0.0646601

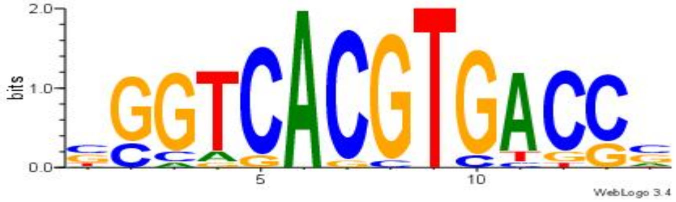
Alignment:

```
SGGTCACGTGACCS
--DCCACGTGCV--
```

Original motif Consensus sequence: SGGTCACGTGACCS



Reverse complement motif Consensus sequence: SGGTCACGTGACC



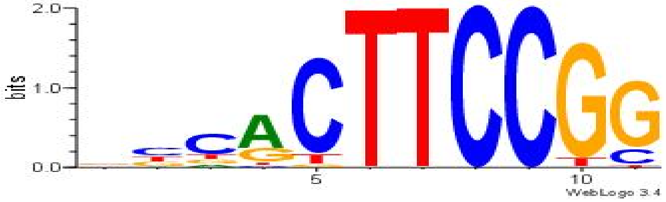
Dataset #: 3
Motif ID: 35
Motif name: GABPA
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 2
Number of overlap: 10

Similarity score: 0.0840341

Alignment:
VVCACTTCCGG
DCCACGTGCV-

Original motif Consensus sequence: CCGGAAGTGVV

Reverse complement motif Consensus sequence: VVCACTTCCGG



Dataset #: 5
Motif ID: 50
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: 10
Similarity score: 0.0851555

Alignment:
GGMGGRGGCGGVGC
--VGCACGTGGH--

Original motif Consensus sequence: GGMGGRGGCGGVGC

Reverse complement motif Consensus sequence: GCVCCGCCMCCYC

Dataset #:	3
Motif ID:	27
Motif name:	Klf4
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:	0.0883745

Alignment:

```
DGGGYGKGGC
VGCACGTGGH
```

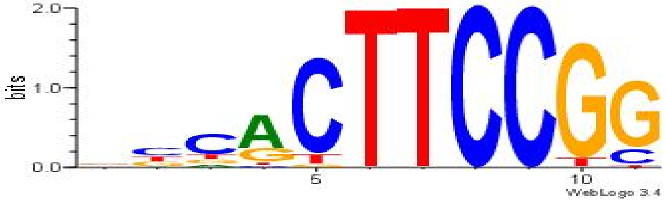
Original motif Consensus sequence: DGGGYGKGGC

Reverse complement motif Consensus sequence: GCCYCMCCCD

Dataset #: 3 Motif ID: 35 Motif name: GABPA

Original motif   Consensus sequence: CCGGAAGTGVV

Reverse complement motif   Consensus sequence: VVCACTTCCGG



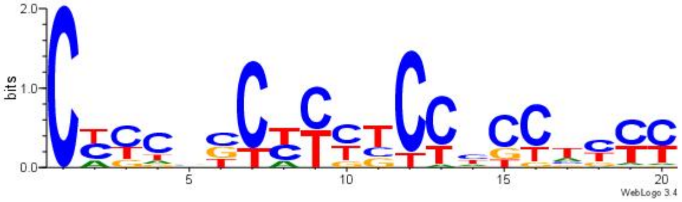
Best Matches for Motif ID 35 (Highest to Lowest)

Dataset #:	5
Motif ID:	54
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:	11
Similarity score:	0.0360984

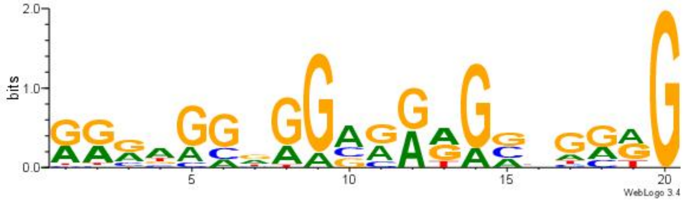
Alignment:

```
CYYCBBCYYYTCCHCCTYYY
----VVCACTTCCGG-----
```

Original motif   Consensus sequence: CYYCBBCYYYTCCHCCTYYY



Reverse complement motif   Consensus sequence: KKKAGGDGGAKKMGBBGKMG

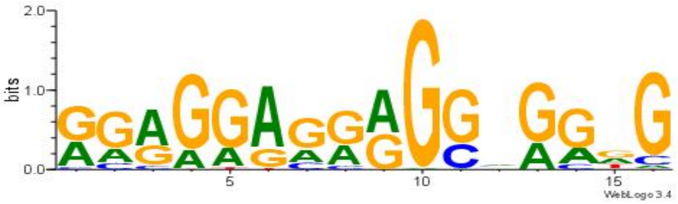


Dataset #: 5
Motif ID: 51
Motif name: TFM2
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 5
Number of overlap: 11
Similarity score: 0.0445566

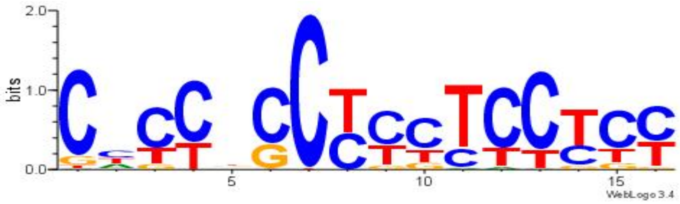
Alignment:

```
RGRGGAGRRGGHGGDG
-CCGGAAGTGVV----
```

Original motif Consensus sequence: RGRGGAGRRGGHGGDG



Reverse complement motif Consensus sequence: CHCCBCCKMCTCCKCM



Dataset #: 3
Motif ID: 31
Motif name: Pax5
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Backward
Position number: 3

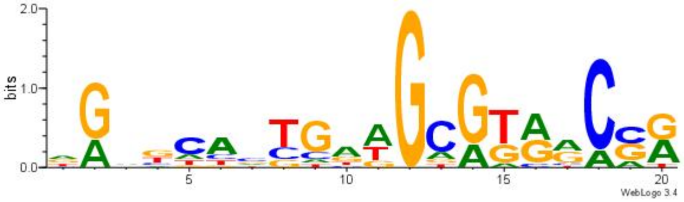
Number of overlap: 11

Similarity score: 0.0446257

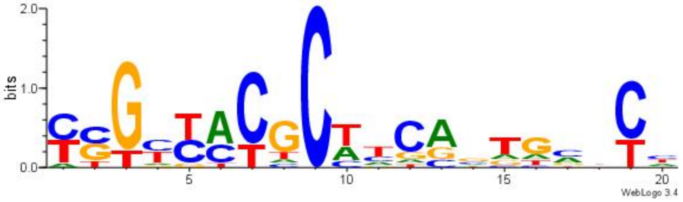
Alignment:

```
DGVBCABTGDWGCGKRRCSR
-------VVCACTTCCGG--
```

Original motif Consensus sequence: DGVBCABTGDWGCGKRRCSR



Reverse complement motif Consensus sequence: MSGKKRCGCWDCABTGBBCD



Dataset #: 3

Motif ID: 22

Motif name: Zfx

Matching format of first motif: Reverse Complement

Matching format of second motif: Original Motif

Direction: Backward

Position number: 4

Number of overlap: 11

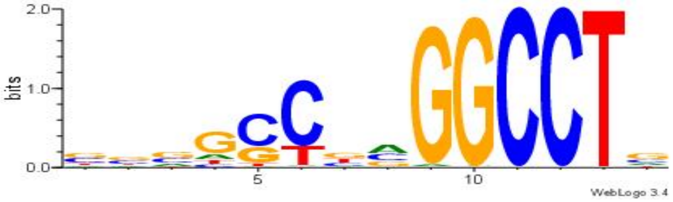
Similarity score: 0.0457327

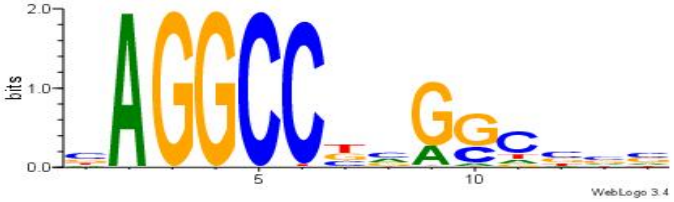
Alignment:

```
BBVGCCBVGGCCTV
VVCACTTCCGG---
```

Original motif Consensus sequence: BBVGCCBVGGCCTV

Reverse complement motif Consensus sequence: VAGGCCBBGGCV





Dataset #:	4
Motif ID:	40
Motif name:	kcACCTGCAgc
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:	0.0483841

Alignment:

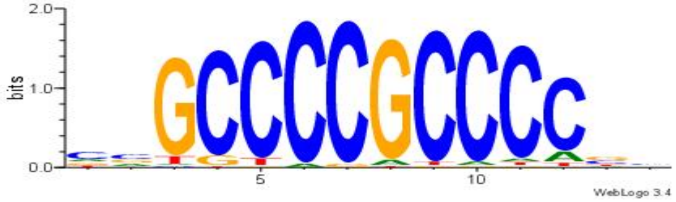
```
BCACCTGCABC
VVCACTTCCGG
```

Original motif Consensus sequence: BCACCTGCABC

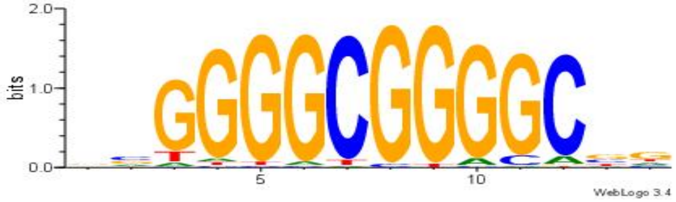
Reverse complement motif Consensus sequence: GBTGCAGGTGB

Dataset #: 4 Motif ID: 36 Motif name: csGCCCCGCCCCsc

Original motif Consensus sequence: HVGCCCCGCCCCBB



Reverse complement motif Consensus sequence: BBGGGGCGGGGC



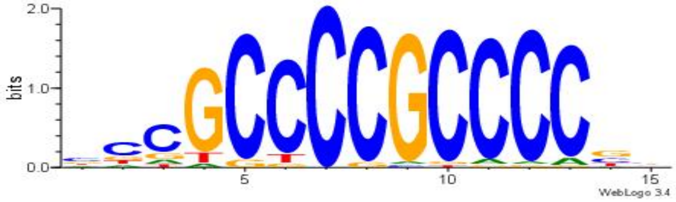
Best Matches for Motif ID 36 (Highest to Lowest)

Dataset #:	4
Motif ID:	38
Motif name:	cccGCCCCGCCCCsb
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

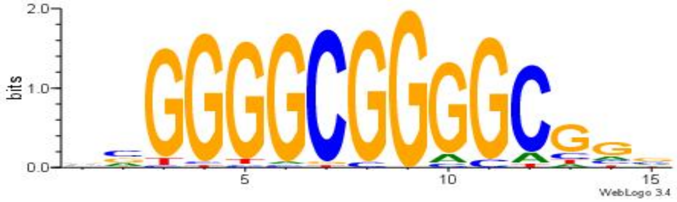
Alignment:

```
BBGGGGCGGGGCGGB
BBGGGGCGGGGCVD-
```

Original motif Consensus sequence: BCCGCCCCGCCCCBB



Reverse complement motif Consensus sequence: BBGGGGCGGGGCGGB

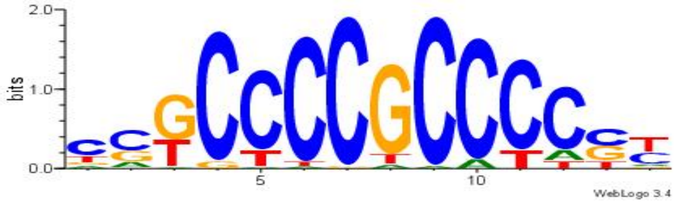


Dataset #: 2
Motif ID: 7
Motif name: Motif 7
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 1
Number of overlap: 14
Similarity score: 0.0117332

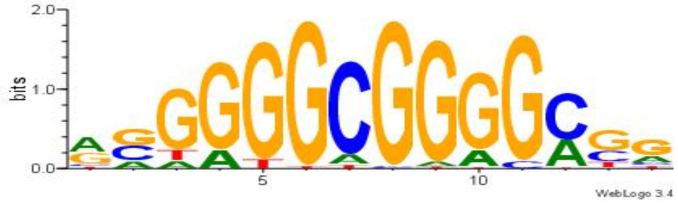
Alignment:

```
CSKCCCCGCCCCSY
HVGCCCCGCCCCBB
```

Original motif Consensus sequence: CSKCCCCGCCCCSY



Reverse complement motif Consensus sequence: MSGGGGCGGGGY



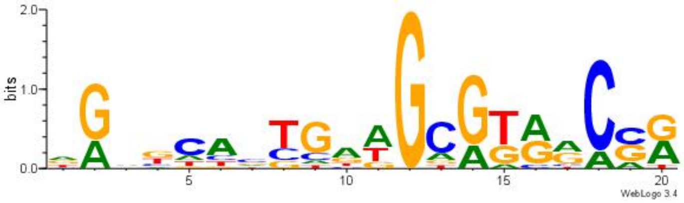
Dataset #: 3
Motif ID: 31
Motif name: Pax5
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 1
Number of overlap: 14

Similarity score:	0.0747029

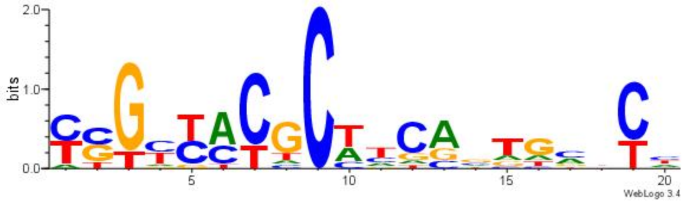
Alignment:

MSGKKRCGCWDCABTGBBCD
------HVGCCCCGCCCCBB

Original motif Consensus sequence: DGVBCABTGDWGCGKRRCSR



Reverse complement motif Consensus sequence: MSGKKRCGCWDCABTGBBCD



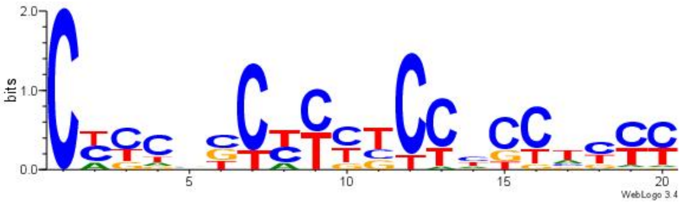
Dataset #:	5
Motif ID:	54
Motif name:	TFM12
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	4
Number of overlap:	14
Similarity score:	0.0777991

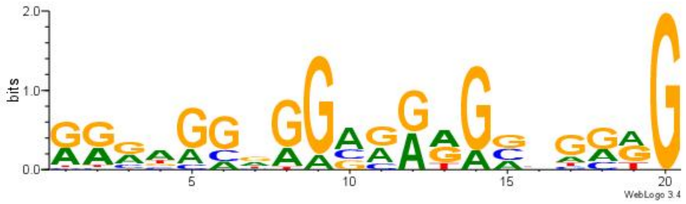
Alignment:

CYYCBBCYYYTCCHCCTYYY
---HVGCCCCGCCCCBB---

Original motif Consensus sequence: CYYCBBCYYYTCCHCCTYYY

Reverse complement motif Consensus sequence: KKKAGGDGGAKKMGBBGKMG



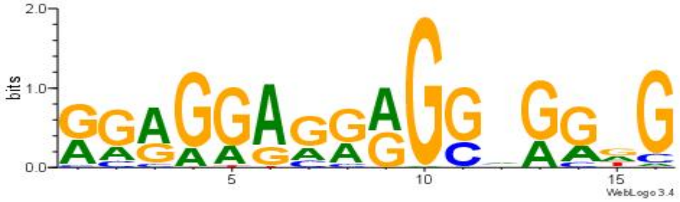


Dataset #:	5
Motif ID:	51
Motif name:	TFM2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	14
Similarity score:	0.0880609

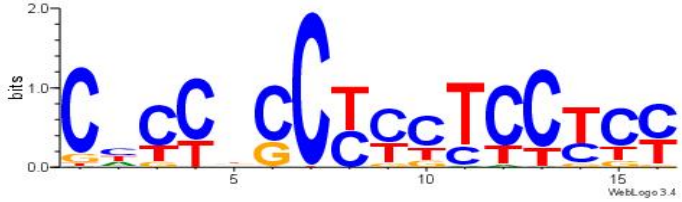
Alignment:

RGRGGAGRRGGHGGDG
BBGGGGCGGGGCVD--

Original motif Consensus sequence: RGRGGAGRRGGHGGDG

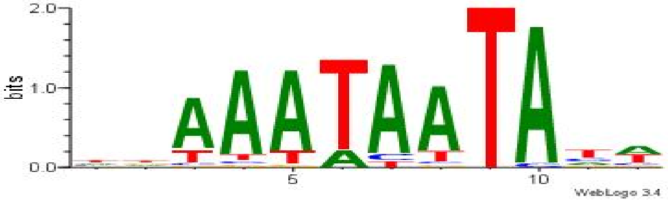


Reverse complement motif Consensus sequence: CHCCBCCKMCTCCKCM

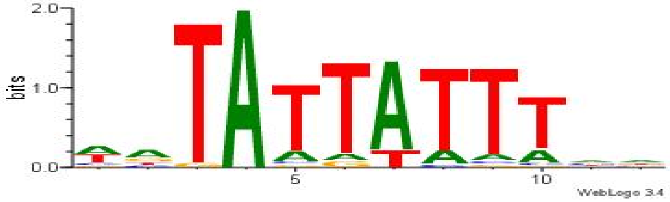


Dataset #: 4 **Motif ID: 37** **Motif name: tkAAATAATAtw**

Original motif Consensus sequence: HDAAATAATAHW



Reverse complement motif Consensus sequence: WHTATTATTTDH



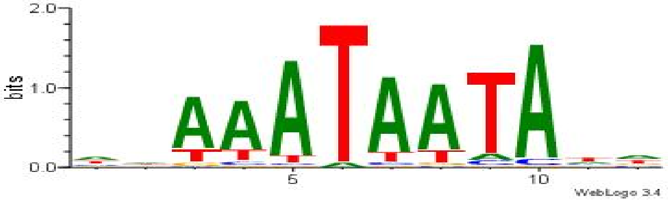
Best Matches for Motif ID 37 (Highest to Lowest)

Dataset #:	4
Motif ID:	41
Motif name:	wwAAATAATAtw
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

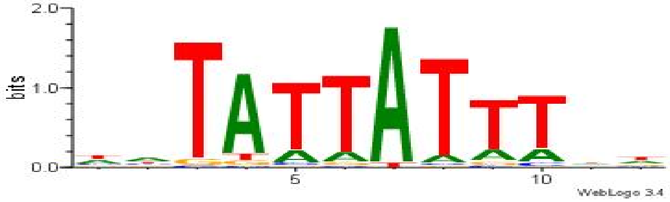
Alignment:

```
HDAAATAATADD
HDAAATAATAHW
```

Original motif Consensus sequence: HDAAATAATADD



Reverse complement motif Consensus sequence: DDTATTATTTDH

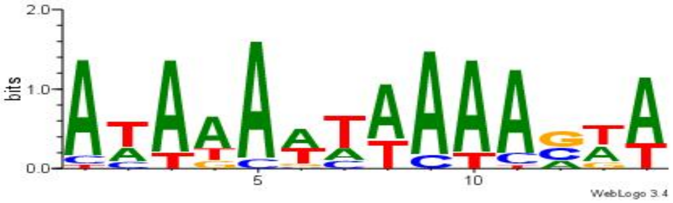


Dataset #:	2
Motif ID:	3
Motif name:	Motif 3
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	12
Similarity score:	0.0522317

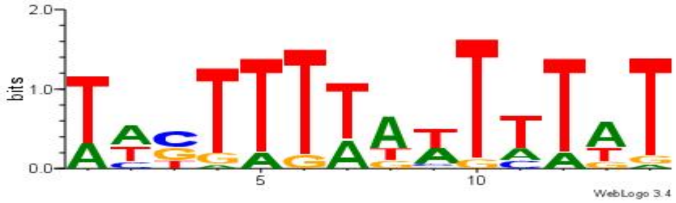
Alignment:

```
TWSTTTWAWTTTWT
-WHTATTATTTDH-
```

Original motif Consensus sequence: AWAAAWTWAAASWA



Reverse complement motif Consensus sequence: TWSTTTWAWTTTW



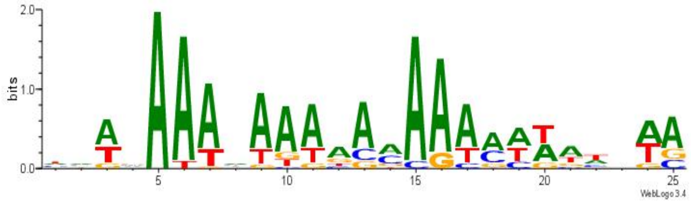
Dataset #:	5
Motif ID:	56
Motif name:	TFM11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	12

Similarity score:	0.0590505

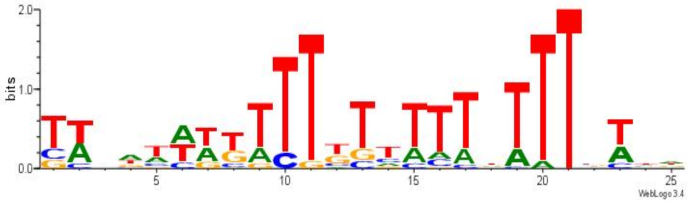
Alignment:

```
TWVHWWWYTTTYTTTTTHTTTVWBH
-----------WHTATTATTTDH--
```

Original motif Consensus sequence:
HDWVAAAHAAAAAMAAAMWWWHBWA



Reverse complement motif Consensus sequence:
TWVHWWWYTTTYTTTTTHTTTVWBH



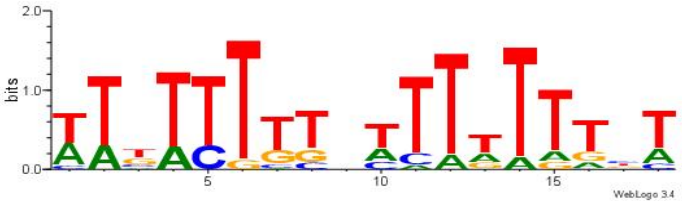
Dataset #:	5
Motif ID:	52
Motif name:	TFM1
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	12
Similarity score:	0.0637702

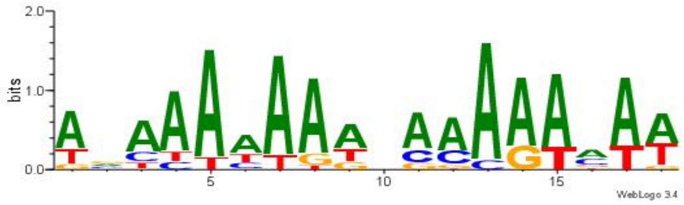
Alignment:

```
ABAAAAAAWHAAAAARAW
HDAAATAATAHW------
```

Original motif Consensus sequence: WTKTTTTTHWTTTTTTBT

Reverse complement motif Consensus sequence:
ABAAAAAAWHAAAAARAW



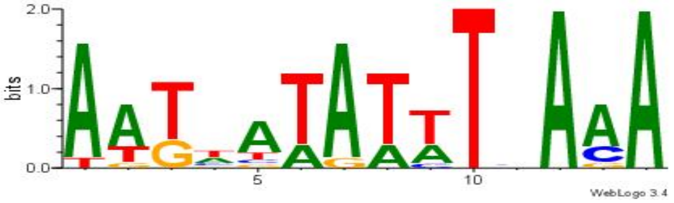


Dataset #:	2
Motif ID:	9
Motif name:	Motif 9
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	12
Similarity score:	0.0641975

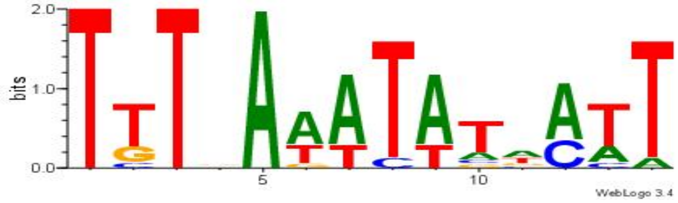
Alignment:

```
AATHATATWTHAAA
--WHTATTATTTDH
```

Original motif Consensus sequence: AATHATATWTHAAA

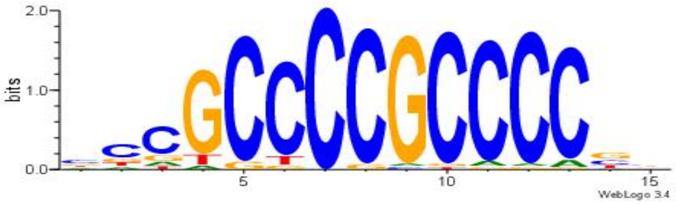


Reverse complement motif Consensus sequence: TTTDAWATATHAT

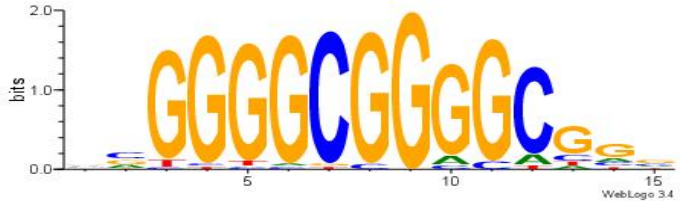


Dataset #: 4 Motif ID: 38 Motif name: cccGCCCCGCCCCsb

Original motif Consensus sequence: BCCGCCCCGCCCCBB



Reverse complement motif Consensus sequence: BBGGGGCGGGGCGGB



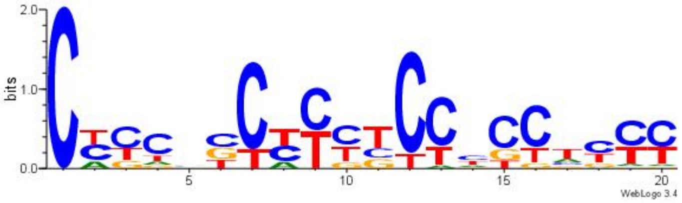
Best Matches for Motif ID 38 (Highest to Lowest)

Dataset #:	5
Motif ID:	54
Motif name:	TFM12
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:	0.0773345

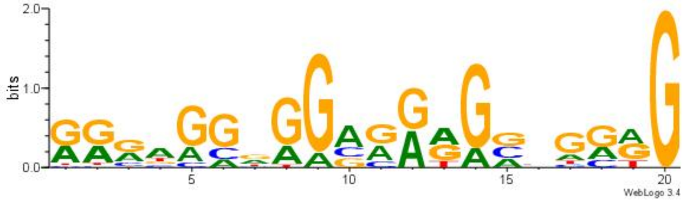
Alignment:

```
CYYCBBCYYYTCCHCCTYYY
--BCCGCCCCGCCCCBB---
```

Original motif Consensus sequence: CYYCBBCYYYTCCHCCTYYY



Reverse complement motif Consensus sequence: KKKAGGDGGAKKMGBBGKMG

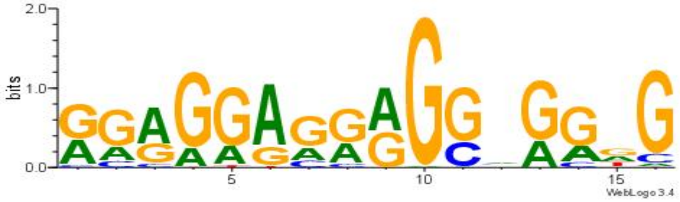


Dataset #:	5
Motif ID:	51
Motif name:	TFM2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	15
Similarity score:	0.0869149

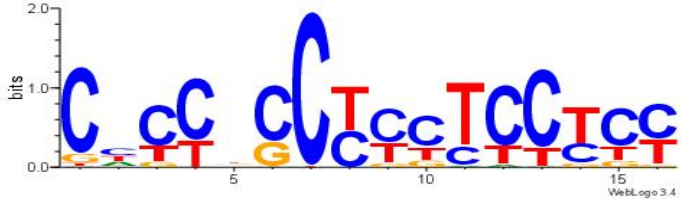
Alignment:

```
RGRGGAGRRGGHGGDG
BBGGGGCGGGGCGGB-
```

Original motif Consensus sequence: RGRGGAGRRGGHGGDG



Reverse complement motif Consensus sequence: CHCCBCCKMCTCCKCM

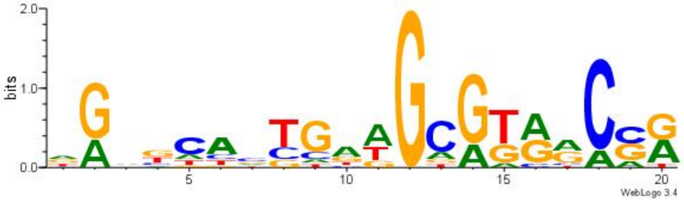


Dataset #:	3
Motif ID:	31
Motif name:	Pax5
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward

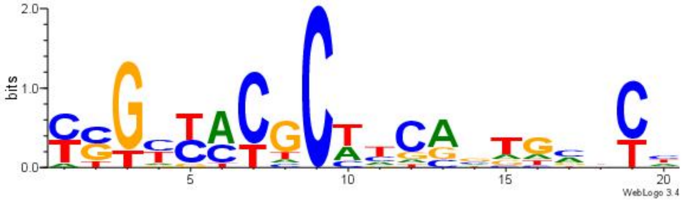
Position number: 1
Number of overlap: 15
Similarity score: 0.0992376

Alignment:
MSGKKRCGCWDCABTGBBCD
BBGGGGCGGGGCGGB-----

Original motif Consensus sequence: DGVBCABTGDWGCGKRRCSR



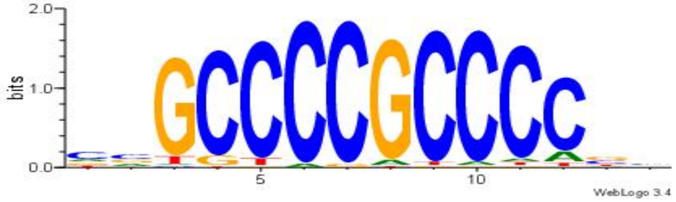
Reverse complement motif Consensus sequence: MSGKKRCGCWDCABTGBBCD



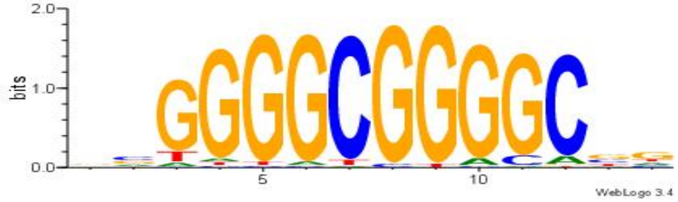
Dataset #: 4
Motif ID: 36
Motif name: csGCCCCGCCCCsc
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 1
Number of overlap: 14
Similarity score: 0.5

Alignment:
-HVGCCCCGCCCCBB
BCCGCCCCGCCCCBB

Original motif Consensus sequence: HVGCCCCGCCCCBB



Reverse complement motif Consensus sequence: BBGGGGCGGGGC

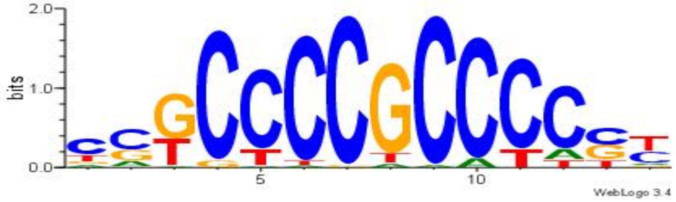


Dataset #:	2
Motif ID:	7
Motif name:	Motif 7
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	14
Similarity score:	0.513015

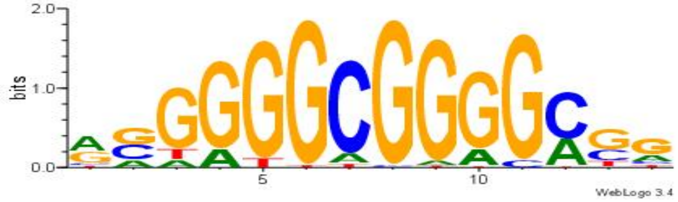
Alignment:

```
-CSKCCCCGCCCCSY
BCCGCCCCGCCCCBB
```

Original motif Consensus sequence: CSKCCCCGCCCCSY



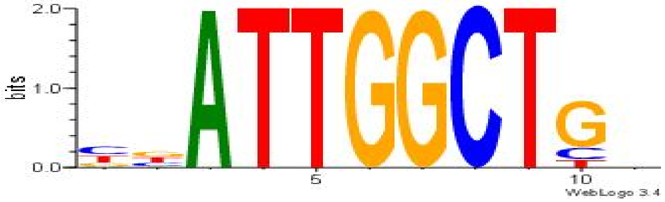
Reverse complement motif Consensus sequence: MSGGGGCGGGGY



Dataset #: 4 **Motif ID: 39** **Motif name: kCAGCCAATmr**

Original motif Consensus sequence: DCAGCCAATVR

Reverse complement motif Consensus sequence: MBATTGGCTGH



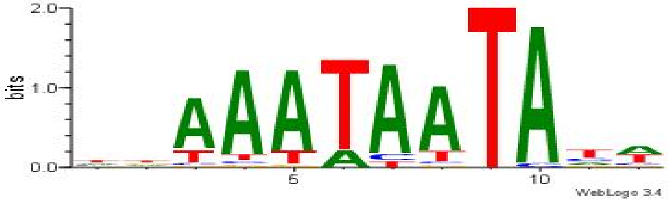
Best Matches for Motif ID 39 (Highest to Lowest)

Dataset #:	4
Motif ID:	37
Motif name:	tkAAATAATAtw
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:	0.0559269

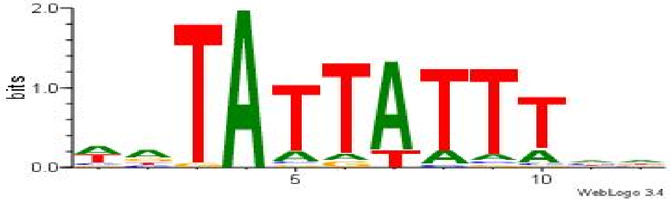
Alignment:

```
WHTATTATTTDH
-MBATTGGCTGH
```

Original motif Consensus sequence: HDAAATAATAHW



Reverse complement motif Consensus sequence: WHTATTATTTDH

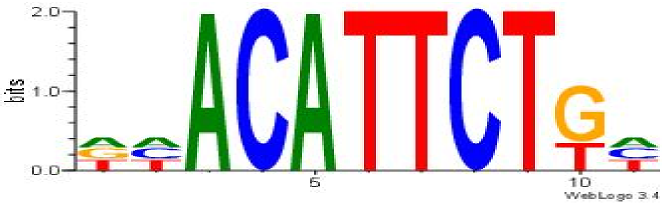


Dataset #:	4
Motif ID:	44
Motif name:	dhACATTCTkh
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0588235

Alignment:

```
HCAGAATGTHD
DCAGCCAATVR
```

Original motif Consensus sequence: DHACATTCTGH



Reverse complement motif Consensus sequence: HCAGAATGTHD

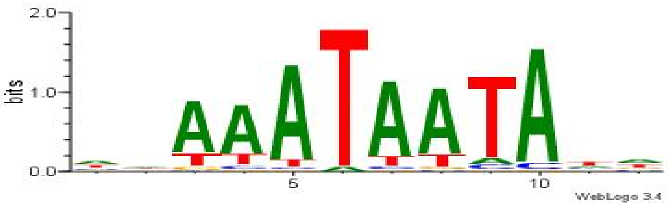
Dataset #:	4
Motif ID:	41
Motif name:	wwAAATAATAtw
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1

Number of overlap:	11
Similarity score:	0.0597643

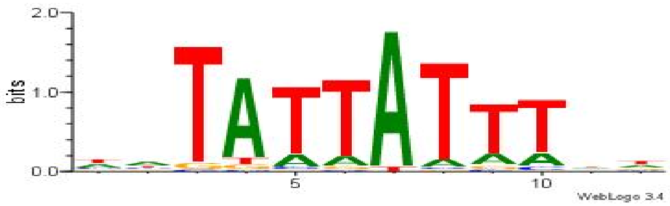
Alignment:

```
DDTATTATTTDH
-MBATTGGCTGH
```

Original motif Consensus sequence: HDAAATAATADD



Reverse complement motif Consensus sequence: DDTATTATTTDH



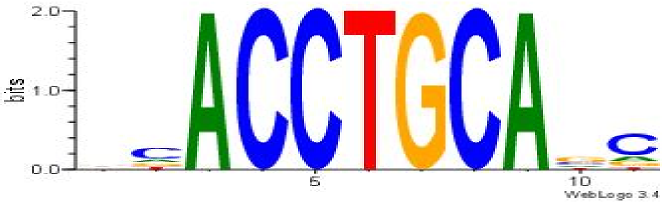
Dataset #:	4
Motif ID:	40
Motif name:	kcACCTGCAgc
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0599548

Alignment:

```
BCACCTGCABC
MBATTGGCTGH
```

Original motif Consensus sequence: BCACCTGCABC

Reverse complement motif Consensus sequence: GBTGCAGGTGB



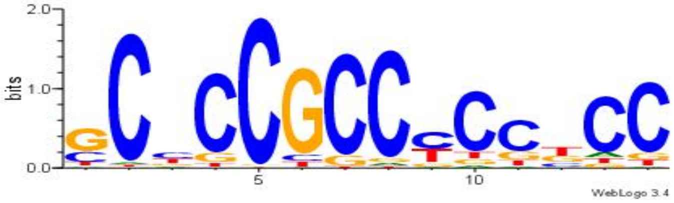
Dataset #:	5
Motif ID:	50
Motif name:	TFF11
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	11
Similarity score:	0.0614719

Alignment:

```
GCVCCGCCMCCYCC
--DCAGCCAATVR-
```

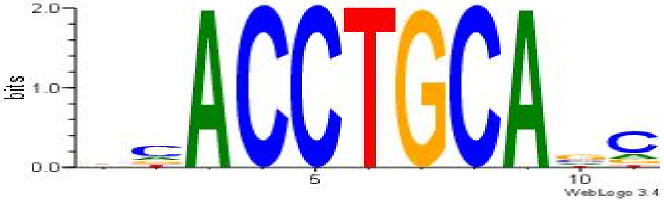
Original motif Consensus sequence: GGMGGRGGCGGVGC

Reverse complement motif Consensus sequence: GCVCCGCCMCCYC



Dataset #: 4 **Motif ID: 40** **Motif name: kcACCTGCAgc**

Original motif   Consensus sequence: BCACCTGCABC



Reverse complement motif   Consensus sequence: GBTGCAGGTGB

Best Matches for Motif ID 40 (Highest to Lowest)

Dataset #:	4
Motif ID:	43
Motif name:	wsTACwGTAsw
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:	0.0215284

Alignment:

```
DBTACWGTAVH
BCACCTGCABC
```

Original motif   Consensus sequence: HVTACWGTABD

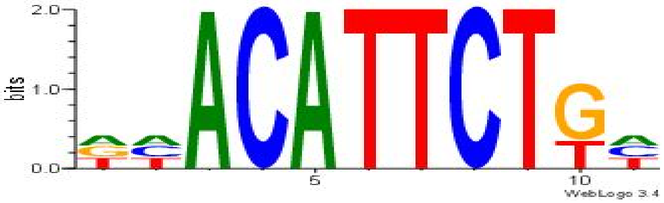
Reverse complement motif   Consensus sequence: DBTACWGTAVH

Dataset #: 4
Motif ID: 44
Motif name: dhACATTCTkh
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: 0.0254134

Alignment:

```
DHACATTCTGH
BCACCTGCABC
```

Original motif Consensus sequence: DHACATTCTGH



Reverse complement motif Consensus sequence: HCAGAATGTHD

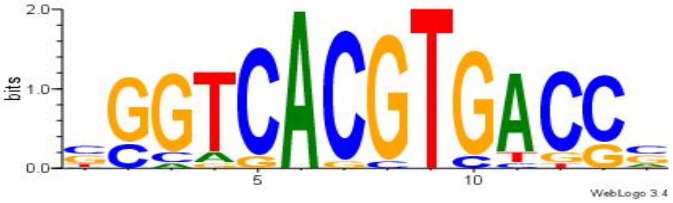
Dataset #: 4
Motif ID: 42
Motif name: sSGTCACGTGACSs
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 4
Number of overlap: 11

Similarity score: 0.031338

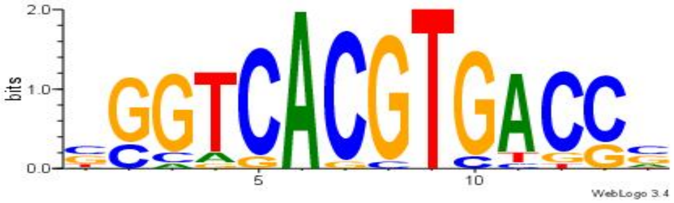
Alignment:

```
SGGTCACGTGACCS
---BCACCTGCABC
```

Original motif Consensus sequence: SGGTCACGTGACCS



Reverse complement motif Consensus sequence: SGGTCACGTGACC



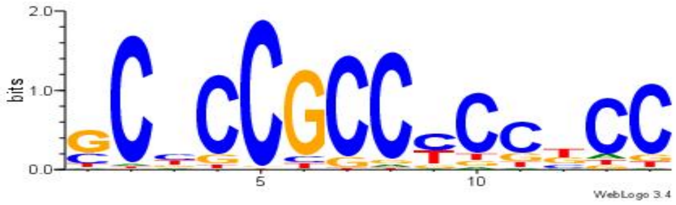
Dataset #:	5
Motif ID:	50
Motif name:	TFF11
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	11
Similarity score:	0.034471

Alignment:

```
GCVCCGCCMCCYCC
BCACCTGCABC---
```

Original motif Consensus sequence: GGMGGRGGCGGVGC

Reverse complement motif Consensus sequence: GCVCCGCCMCCYC



Dataset #: 4

Motif ID: 36

Motif name: csGCCCCGCCCCsc

Matching format of first motif: Original Motif

Matching format of second motif: Original Motif

Direction: Backward

Position number: 3

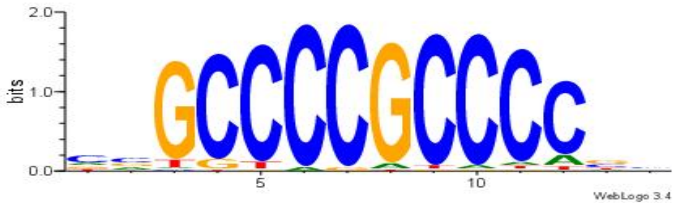
Number of overlap: 11

Similarity score: 0.0402518

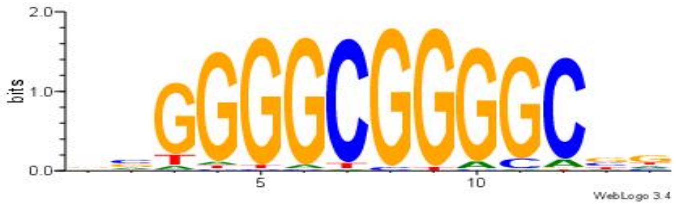
Alignment:

```
HVGCCCCGCCCCBB
-BCACCTGCABC--
```

Original motif Consensus sequence: HVGCCCCGCCCCBB

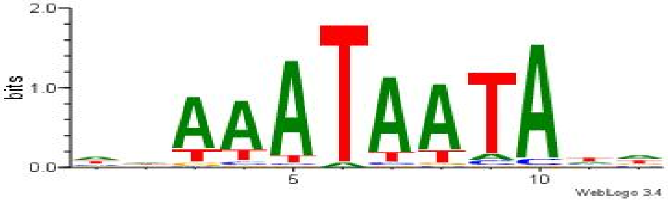


Reverse complement motif Consensus sequence: BBGGGGCGGGGC

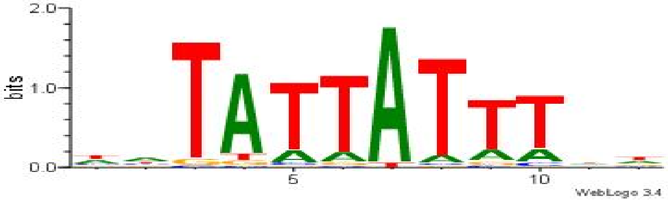


Dataset #: 4 Motif ID: 41 Motif name: wwAAATAATAtw

Original motif Consensus sequence: HDAAATAATADD



Reverse complement motif Consensus sequence: DDTATTATTTDH



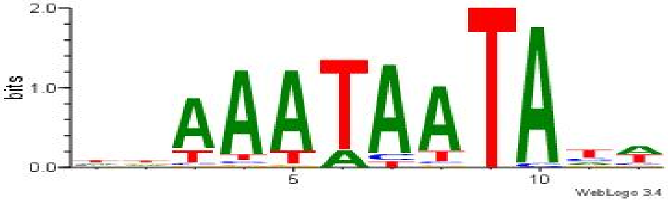
Best Matches for Motif ID 41 (Highest to Lowest)

Dataset #:	4
Motif ID:	37
Motif name:	tkAAATAATAtw
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

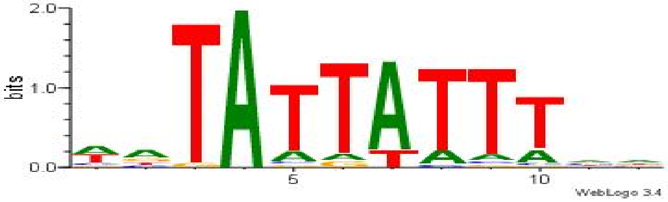
Alignment:

HDAAATAATAHW
HDAAATAATADD

Original motif Consensus sequence: HDAAATAATAHW



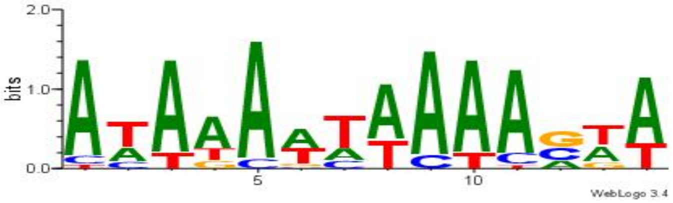
Reverse complement motif Consensus sequence: WHTATTATTTDH



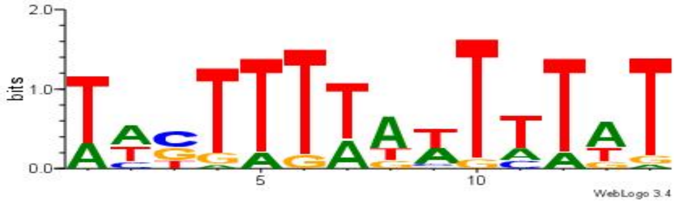
Dataset #: 2
Motif ID: 3
Motif name: Motif 3
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 2
Number of overlap: 12
Similarity score: 0.0536028

Alignment:
AWAAAWTWAAASWA
-HDAAATAATADD-

Original motif Consensus sequence: AWAAAWTWAAASWA



Reverse complement motif Consensus sequence: TWSTTTWAWTTT



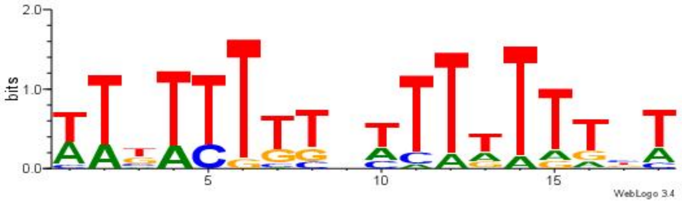
Dataset #: 5
Motif ID: 52
Motif name: TFM1
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 7
Number of overlap: 12

Similarity score: 0.0565705

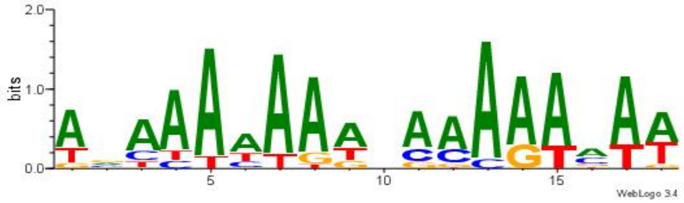
Alignment:

WTKTTTTTHWTTTTTTTBT
------DDTATTATTTDH

Original motif Consensus sequence: WTKTTTTTHWTTTTTTTBT



Reverse complement motif Consensus sequence: ABAAAAAAAWHAAAAARAW



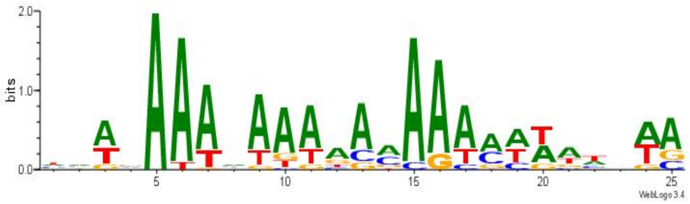
Dataset #:	5
Motif ID:	56
Motif name:	TFM11
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	12
Similarity score:	0.0575935

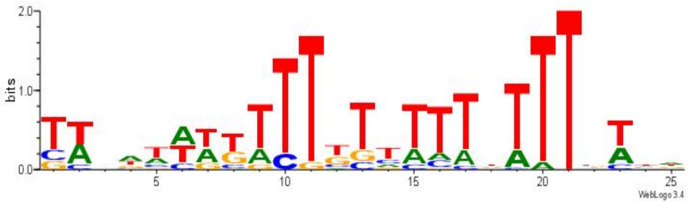
Alignment:

HDWVAAAHAAAAAMAAAMWWWHBWA
--HDAAATAATADD-----------

Original motif Consensus sequence: HDWVAAAHAAAAAMAAAMWWWHBWA

Reverse complement motif Consensus sequence: TWVHWWWYTTTYTTTTTHTTTVWBH



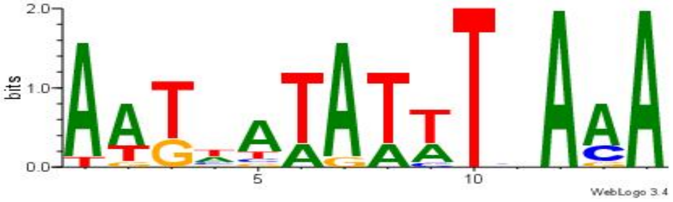


Dataset #: 2
Motif ID: 9
Motif name: Motif 9
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 3
Number of overlap: 12
Similarity score: 0.0591821

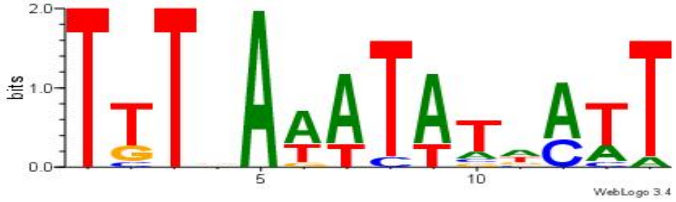
Alignment:

```
AATHATATWTHAAA
--DDTATTATTTDH
```

Original motif Consensus sequence: AATHATATWTHAAA

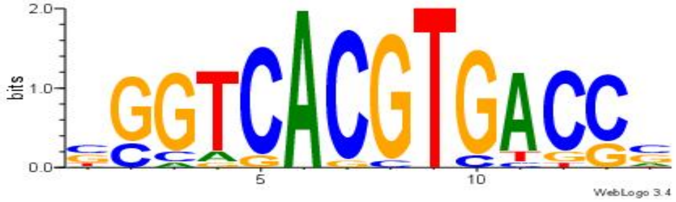


Reverse complement motif Consensus sequence: TTTDAWATATHAT

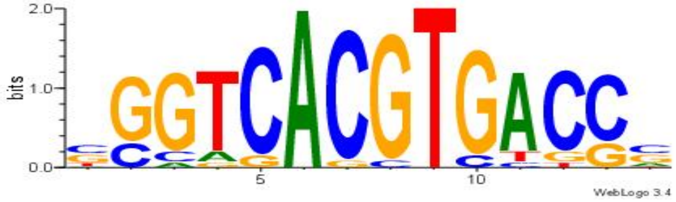


Dataset #: 4 Motif ID: 42 Motif name: sSGTCACGTGACSs

Original motif   Consensus sequence: SGGTCACGTGACCS



Reverse complement motif   Consensus sequence: SGGTCACGTGACC



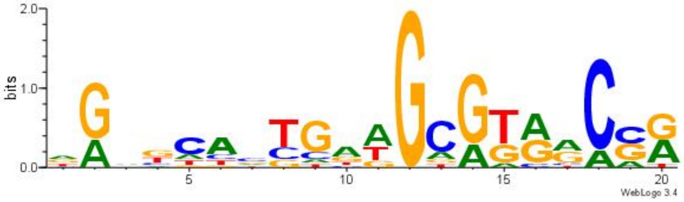
Best Matches for Motif ID 42 (Highest to Lowest)

Dataset #:	3
Motif ID:	31
Motif name:	Pax5
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:	0.0518737

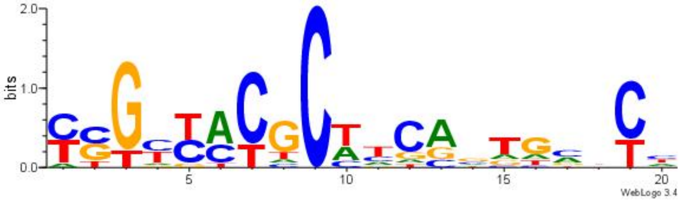
Alignment:

```
DGVBCABTGDWGCGKRRCSR
------SGGTCACGTGACCS
```

Original motif   Consensus sequence: DGVBCABTGDWGCGKRRCSR



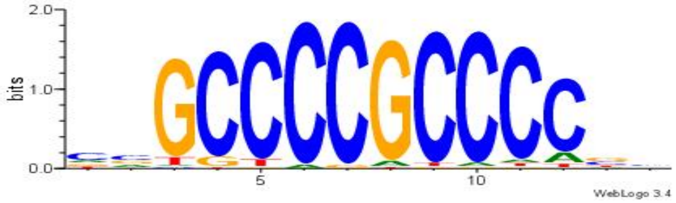
Reverse complement motif   Consensus sequence: MSGKKRCGCWDCABTGBBCD



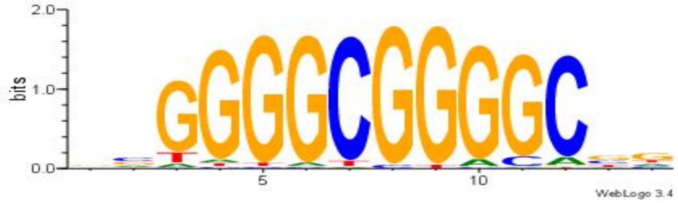
Dataset #: 4
Motif ID: 36
Motif name: csGCCCCGCCCCsc
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 1
Number of overlap: 14
Similarity score: 0.0539097

Alignment:
`BBGGGGCGGGGCVD`
`SGGTCACGTGACCS`

Original motif Consensus sequence: HVGCCCCGCCCCBB



Reverse complement motif Consensus sequence: BBGGGGCGGGGC



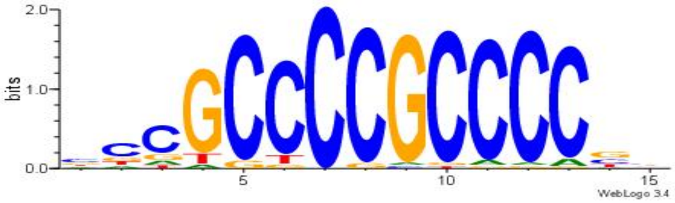
Dataset #: 4
Motif ID: 38
Motif name: cccGCCCCGCCCCsb
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 1
Number of overlap: 14

Similarity score: 0.0581955

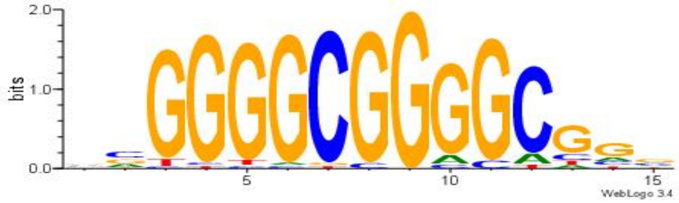
Alignment:

```
BCCGCCCCGCCCCBB
SGGTCACGTGACCS-
```

Original motif Consensus sequence: BCCGCCCCGCCCCBB



Reverse complement motif Consensus sequence: BBGGGGCGGGGCGGB



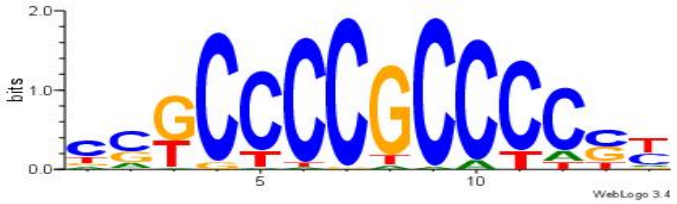
Dataset #:	2
Motif ID:	7
Motif name:	Motif 7
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	14
Similarity score:	0.0634135

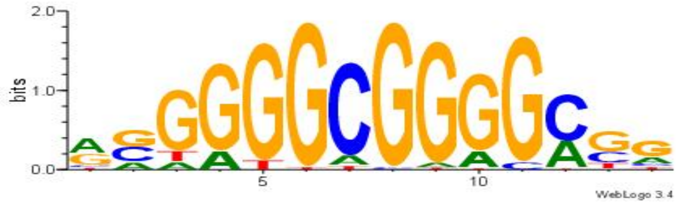
Alignment:

```
MSGGGGCGGGGYSG
SGGTCACGTGACCS
```

Original motif Consensus sequence: CSKCCCCGCCCCSY

Reverse complement motif Consensus sequence: MSGGGGCGGGGY





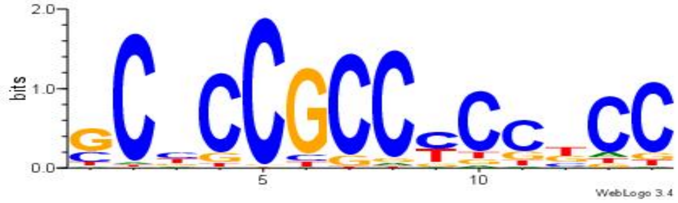
Dataset #:	5
Motif ID:	50
Motif name:	TFF11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	12
Similarity score:	1.05855

Alignment:

```
--GCVCCGCCMCCYCC
SGGTCACGTGACCS--
```

Original motif Consensus sequence: GGMGGRGGCGGVGC

Reverse complement motif Consensus sequence: GCVCCGCCMCCYC



Dataset #: 4 **Motif ID: 43** **Motif name: wsTACwGTAsw**

Original motif   Consensus sequence: HVTACWGTABD

Reverse complement motif   Consensus sequence: DBTACWGTAVH

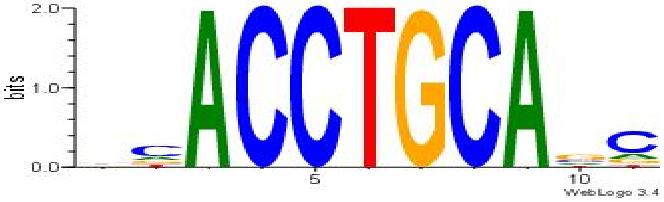
Best Matches for Motif ID 43 (Highest to Lowest)

Dataset #:	4
Motif ID:	40
Motif name:	kcACCTGCAgc
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:	0.0199592

Alignment:

```
GBTGCAGGTGB
HVTACWGTABD
```

Original motif   Consensus sequence: BCACCTGCABC



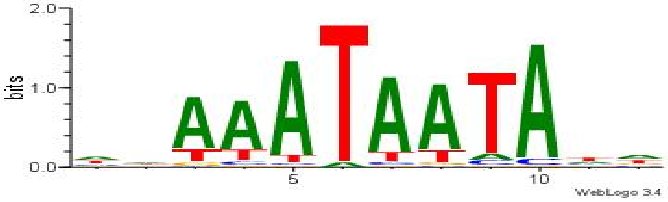
Reverse complement motif   Consensus sequence: GBTGCAGGTGB

Dataset #:	4
Motif ID:	41
Motif name:	wwAAATAATAtw
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:	0.0309343

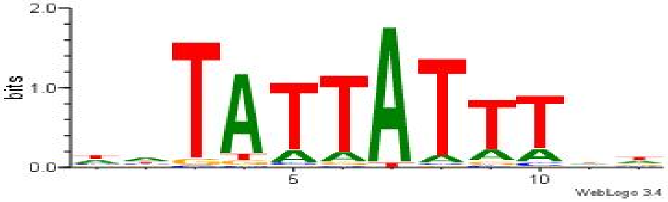
Alignment:

```
DDTATTATTTDH
-HVTACWGTABD
```

Original motif   Consensus sequence: HDAAATAATADD



Reverse complement motif   Consensus sequence: DDTATTATTTDH



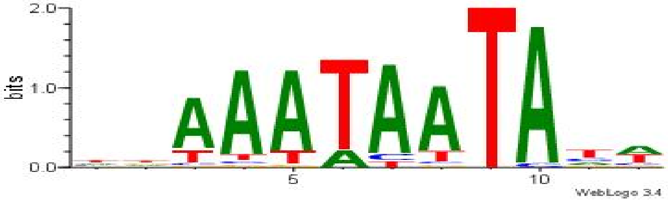
Dataset #:	4
Motif ID:	37
Motif name:	tkAAATAATAtw
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	11

Similarity score: 0.0337121

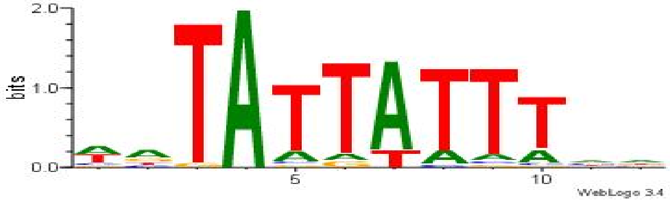
Alignment:

```
HDAAATAATAHW
DBTACWGTAVH-
```

Original motif Consensus sequence: HDAAATAATAHW



Reverse complement motif Consensus sequence: WHTATTATTTDH



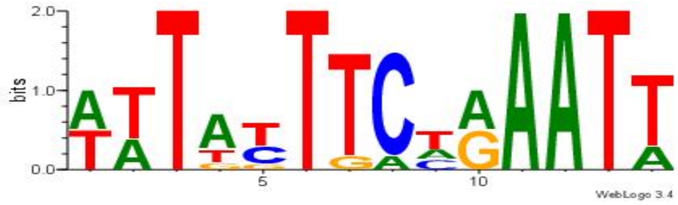
Dataset #: 2
Motif ID: 6
Motif name: Motif 6
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 4
Number of overlap: 11
Similarity score: 0.0353535

Alignment:

```
AATTYDGAARTAWW
HVTACWGTABD---
```

Original motif Consensus sequence: AATTYDGAARTAWW

Reverse complement motif Consensus sequence: WWTAKTTCDKAAT

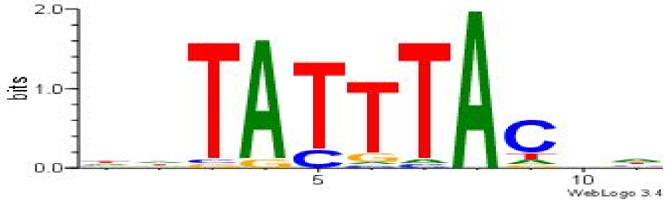


Dataset #: 4
Motif ID: 45
Motif name: wbgTAAATAww
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Backward
Position number: 1
Number of overlap: 11
Similarity score: 0.037518

Alignment:
DBGTAAATAHD
DBTACWGTAVH

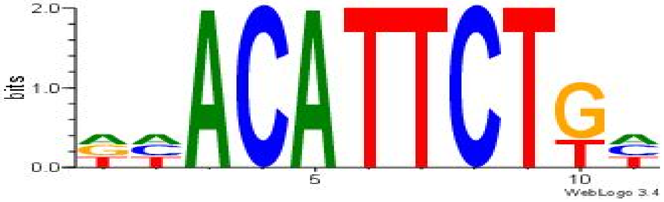
Original motif Consensus sequence: DBGTAAATAHD

Reverse complement motif Consensus sequence: DHTATTTACBD



Dataset #: 4 Motif ID: 44 Motif name: dhACATTCTkh

Original motif Consensus sequence: DHACATTCTGH



Reverse complement motif Consensus sequence: HCAGAATGTHD

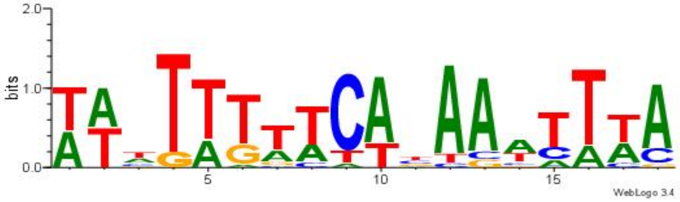
Best Matches for Motif ID 44 (Highest to Lowest)

Dataset #:	5
Motif ID:	53
Motif name:	TFM3
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	8
Number of overlap:	11
Similarity score:	0.0217516

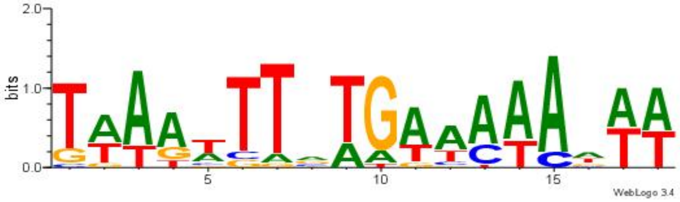
Alignment:

```
TWAAWTTVTGAAAAAHWW
DHACATTCTGH-------
```

Original motif Consensus sequence: WWHTTTTTCABAAWTTWA



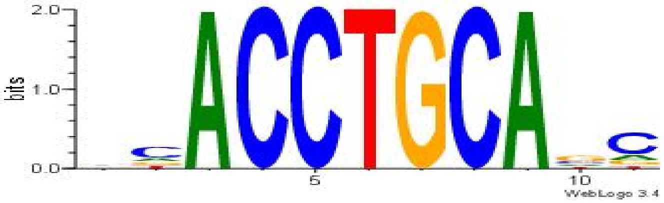
Reverse complement motif Consensus sequence: TWAAWTTVTGAAAAAHWW



Dataset #: 4
Motif ID: 40
Motif name: kcACCTGCAgc
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: 0.0238442

Alignment:
BCACCTGCABC
DHACATTCTGH

Original motif Consensus sequence: BCACCTGCABC



Reverse complement motif Consensus sequence: GBTGCAGGTGB

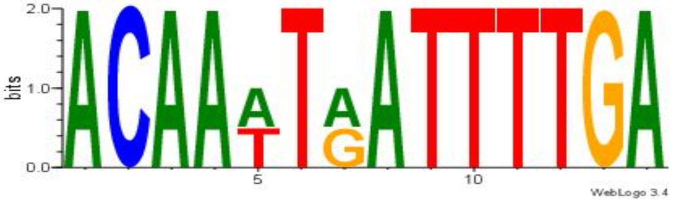
Dataset #: 2
Motif ID: 16
Motif name: Motif 16
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 1
Number of overlap: 11

Similarity score: 0.0258838

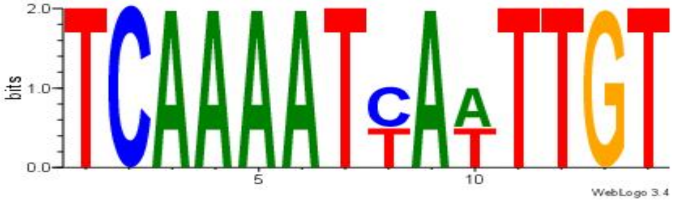
Alignment:

```
TCAAAATKAWTTGT
HCAGAATGTHD---
```

Original motif Consensus sequence: ACAAWTRATTTTGA



Reverse complement motif Consensus sequence: TCAAAATKAWTTG



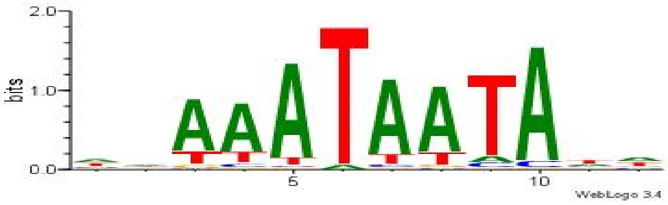
Dataset #:	4
Motif ID:	41
Motif name:	wwAAATAATAtw
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0292508

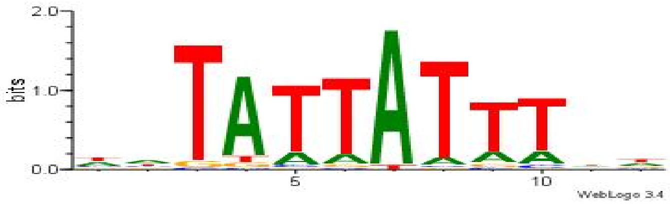
Alignment:

```
DDTATTATTTDH
-HCAGAATGTHD
```

Original motif Consensus sequence: HDAAATAATADD

Reverse complement motif Consensus sequence: DDTATTATTTDH



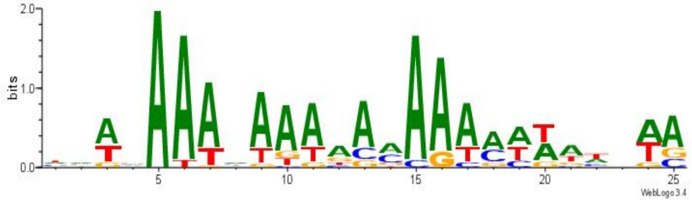


Dataset #:	5
Motif ID:	56
Motif name:	TFM11
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	11
Number of overlap:	11
Similarity score:	0.0307858

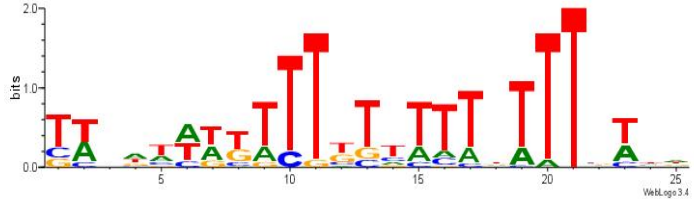
Alignment:

```
TWVHWWWYTTTYTTTTTHTTTVWBH
----DHACATTCTGH----------
```

Original motif Consensus sequence:
HDWVAAAHAAAAAMAAAMWWWHBWA



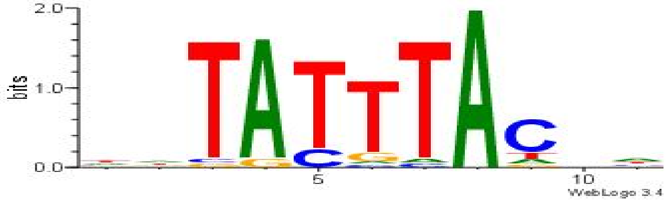
Reverse complement motif Consensus sequence:
TWVHWWWYTTTYTTTTTHTTTVWBH



Dataset #: 4 Motif ID: 45 Motif name: wbgTAAATAww

Original motif   Consensus sequence: DBGTAAATAHD

Reverse complement motif   Consensus sequence: DHTATTTACBD



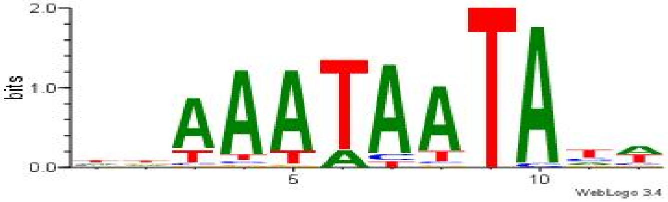
Best Matches for Motif ID 45 (Highest to Lowest)

Dataset #:	4
Motif ID:	37
Motif name:	tkAAATAATAtw
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:	0.0162338

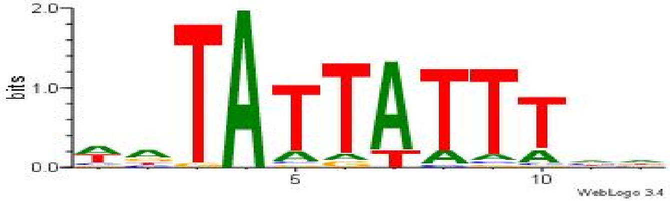
Alignment:

```
HDAAATAATAHW
-DBGTAAATAHD
```

Original motif   Consensus sequence: HDAAATAATAHW



Reverse complement motif   Consensus sequence: WHTATTATTTDH

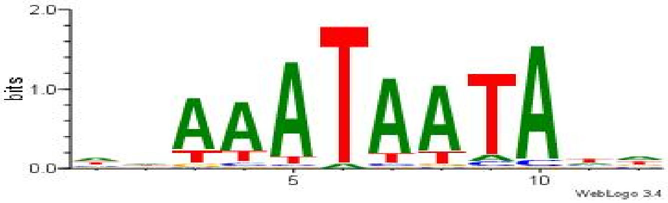


Dataset #:	4
Motif ID:	41
Motif name:	wwAAATAATAtw
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	11
Similarity score:	0.0164863

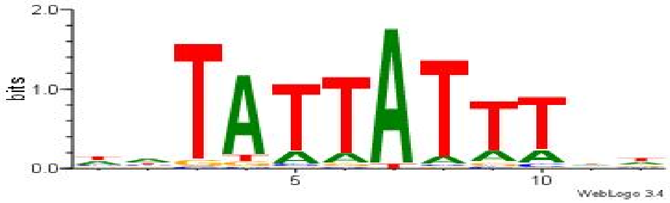
Alignment:

```
DDTATTATTTDH
DHTATTTACBD-
```

Original motif Consensus sequence: HDAAATAATADD



Reverse complement motif Consensus sequence: DDTATTATTTDH



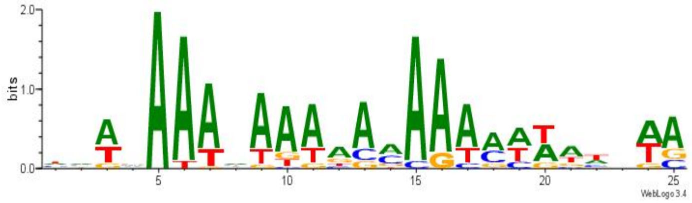
Dataset #:	5
Motif ID:	56
Motif name:	TFM11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	15
Number of overlap:	11

Similarity score: 0.0192768

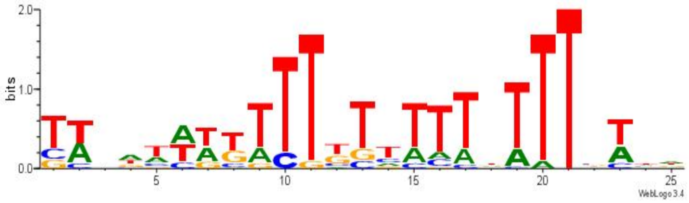
Alignment:

```
TWVHWWWYTTTYTTTTTHTTTVWBH
---------------DHTATTTACBD
```

Original motif Consensus sequence:
HDWVAAAHAAAAAMAAAMWWWHBWA



Reverse complement motif Consensus sequence:
TWVHWWWYTTTYTTTTTHTTTVWBH



Dataset #: 2

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: 4

Number of overlap: 11

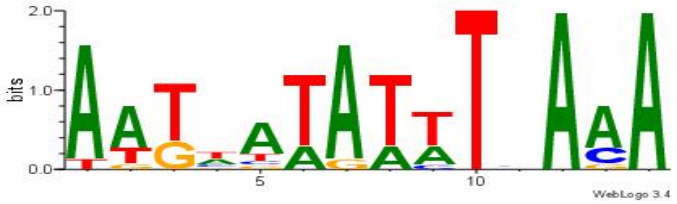
Similarity score: 0.0250541

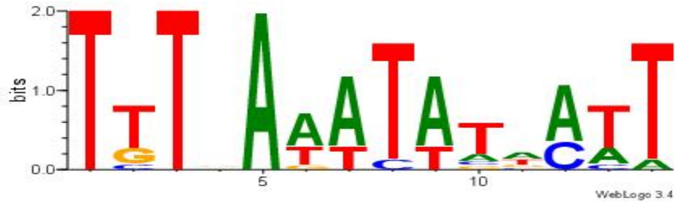
Alignment:

```
AATHATATWTHAAA
DHTATTTACBD---
```

Original motif Consensus sequence: AATHATATWTHAAA

Reverse complement motif Consensus sequence: TTTDAWATATHAT



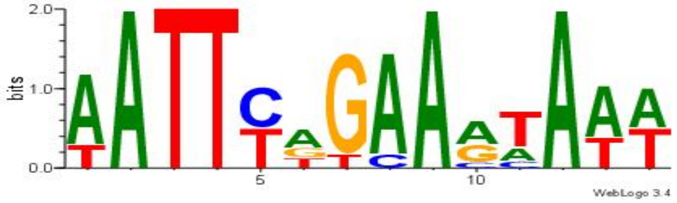


Dataset #:	2
Motif ID:	6
Motif name:	Motif 6
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.027895

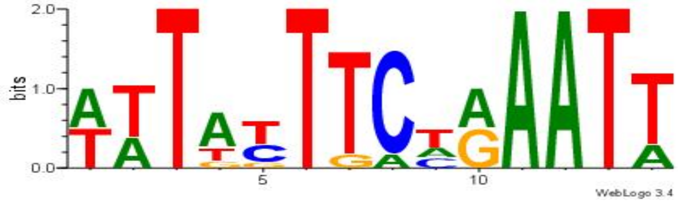
Alignment:

```
AATTYDGAARTAWW
---DBGTAAATAHD
```

Original motif Consensus sequence: AATTYDGAARTAWW



Reverse complement motif Consensus sequence: WWTAKTTCDKAAT



Dataset #: 5 **Motif ID: 46** **Motif name: TFW1**

Original motif Consensus sequence: GTCGCG

Reverse complement motif Consensus sequence: CGCGAC

Best Matches for Motif ID 46 (Highest to Lowest)

Dataset #:	5
Motif ID:	48
Motif name:	TFW3
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	6
Similarity score:	0.0350356

Alignment:

```
CGGCYBCGCG
----GTCGCG
```

Original motif Consensus sequence: CGGCYBCGCG

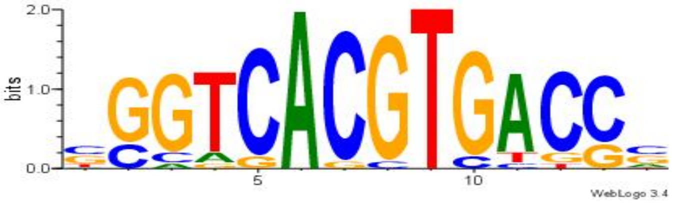
Reverse complement motif Consensus sequence: CGCGBMGCCG

Dataset #:	4
Motif ID:	42
Motif name:	sSGTCACGTGACSs
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:	0.0375102

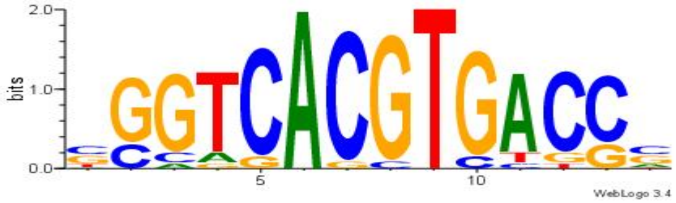
Alignment:

```
SGGTCACGTGACCS
--GTCGCG------
```

Original motif Consensus sequence: SGGTCACGTGACCS



Reverse complement motif Consensus sequence: SGGTCACGTGACC



Dataset #:	5
Motif ID:	50
Motif name:	TFF11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	5
Number of overlap:	6

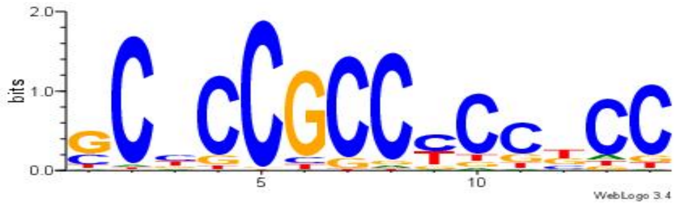
Similarity score: 0.0381641

Alignment:

```
GCVCCGCCMCCYCC
----CGCGAC----
```

Original motif Consensus sequence: GGMGGRGGCGGVGC

Reverse complement motif Consensus sequence: GCVCCGCCMCCYC



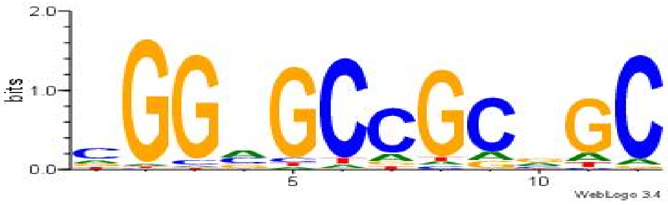
Dataset #:	5
Motif ID:	49
Motif name:	TFF1
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	6
Similarity score:	0.0431161

Alignment:

```
CGGVGCCGCVGC
------CGCGAC
```

Original motif Consensus sequence: CGGVGCCGCVGC

Reverse complement motif Consensus sequence: GCVGCGGCBCCG



Dataset #:	5
Motif ID:	47
Motif name:	TFW2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	6
Similarity score:	0.052047

Alignment:

```
CCGCGCGS
-CGCGAC-
```

Original motif Consensus sequence: SCGCGCGG

Reverse complement motif Consensus sequence: CCGCGCGS

Dataset #: 5 Motif ID: 47 Motif name: TFW2

Original motif Consensus sequence: SCGCGCGG

Reverse complement motif Consensus sequence: CCGCGCGS

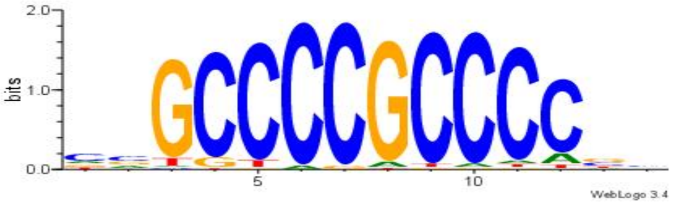
Best Matches for Motif ID 47 (Highest to Lowest)

Dataset #: 4
Motif ID: 36
Motif name: csGCCCCGCCCCsc
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: 0.0456233

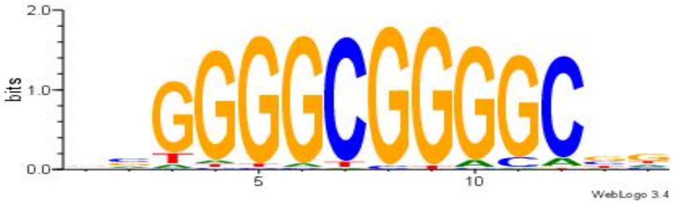
Alignment:

```
HVGCCCCGCCCCBB
-CCGCGCGS-----
```

Original motif Consensus sequence: HVGCCCCGCCCCBB



Reverse complement motif Consensus sequence: BBGGGGCGGGGC

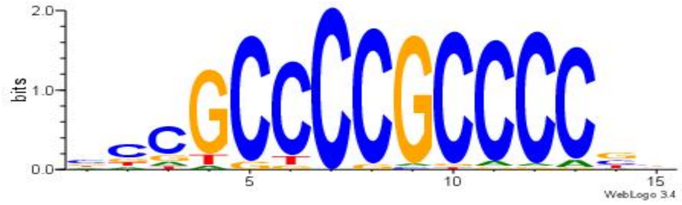


Dataset #:	4
Motif ID:	38
Motif name:	cccGCCCCGCCCCsb
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	7
Number of overlap:	8
Similarity score:	0.045686

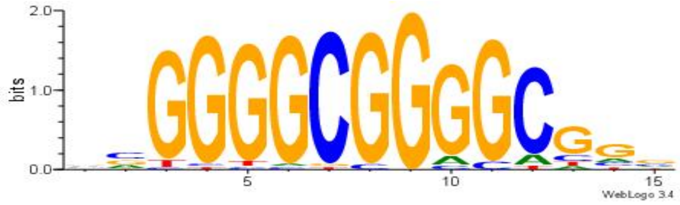
Alignment:

```
BBGGGGCGGGGCGGB
------SCGCGCGG-
```

Original motif Consensus sequence: BCCGCCCCGCCCCBB



Reverse complement motif Consensus sequence: BBGGGGCGGGGCGGB



Dataset #:	2
Motif ID:	7
Motif name:	Motif 7
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	6

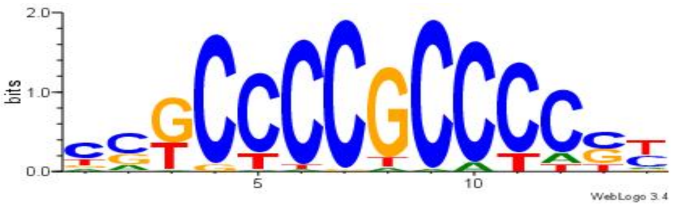
Number of overlap: 8

Similarity score: 0.0504058

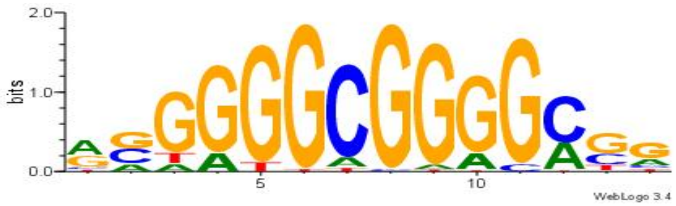
Alignment:

```
CSKCCCCGCCCCSY
-CCGCGCGS-----
```

Original motif Consensus sequence: CSKCCCCGCCCCSY



Reverse complement motif Consensus sequence: MSGGGGCGGGGY



Dataset #: 3

Motif ID: 33

Motif name: Mycn

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: 0.0527532

Alignment:

```
HSCACGTGGC
-SCGCGCGG-
```

Original motif Consensus sequence: HSCACGTGGC

Reverse complement motif Consensus sequence: GCCACGTGSD

Dataset #:	3
Motif ID:	34
Motif name:	Myc
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:	0.0574543

Alignment:

```
VGCACGTGGH
-SCGCGCGG-
```

Original motif Consensus sequence: VGCACGTGGH

Reverse complement motif Consensus sequence: DCCACGTGCV

Dataset #: 5 Motif ID: 48 Motif name: TFW3

Original motif Consensus sequence: CGGCYBCGCG

Reverse complement motif Consensus sequence: CGCGBMGCCG

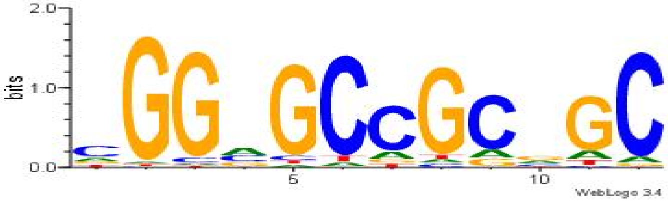
Best Matches for Motif ID 48 (Highest to Lowest)

Dataset #:	5
Motif ID:	49
Motif name:	TFF1
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:	0.0623879

Alignment:

```
CGGVGCCGCVGC
CGGCYBCGCG--
```

Original motif Consensus sequence: CGGVGCCGCVGC



Reverse complement motif Consensus sequence: GCVGCGGCBCCG

Dataset #: 3

Motif ID: 23

Motif name: Egr1

Matching format of first motif: Original Motif

Matching format of second motif: Reverse Complement

Direction: Backward

Position number: 2

Number of overlap: 10

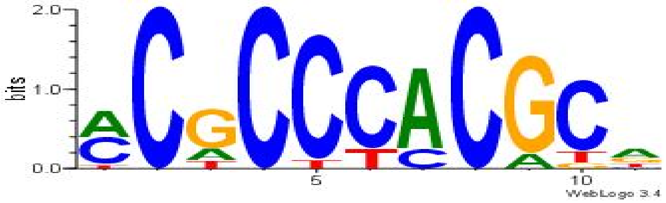
Similarity score: 0.0630189

Alignment:

```
YCGCCCACGCH
CGGCYBCGCG-
```

Original motif Consensus sequence: HGCGTGGGCGK

Reverse complement motif Consensus sequence: YCGCCCACGCH



Dataset #: 5

Motif ID: 50

Motif name: TFF11

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:	0.0645308

Alignment:
`GGMGGRGGCGGVGC`
`CGCGBMGCCG----`

Original motif   Consensus sequence: GGMGGRGGCGGVGC

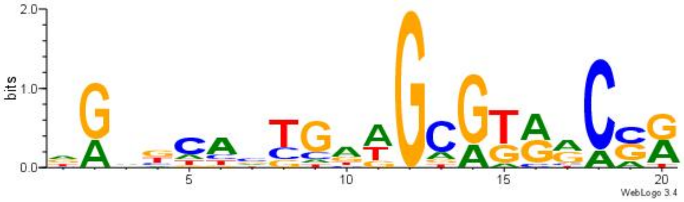
Reverse complement motif   Consensus sequence: GCVCCGCCMCCYC

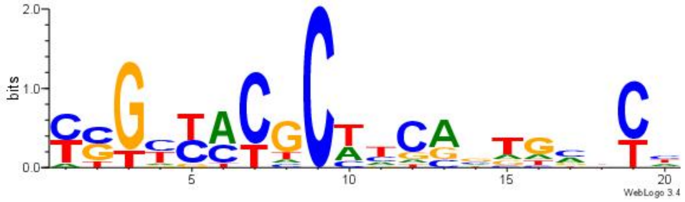
Dataset #:	3
Motif ID:	31
Motif name:	Pax5
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	11
Number of overlap:	10
Similarity score:	0.0714355

Alignment:
`MSGKKRCGCWDCABTGBBCD`
`----------CGGCYBCGCG`

Original motif   Consensus sequence: DGVBCABTGDWGCGKRRCSR

Reverse complement motif   Consensus sequence: MSGKKRCGCWDCABTGBBCD



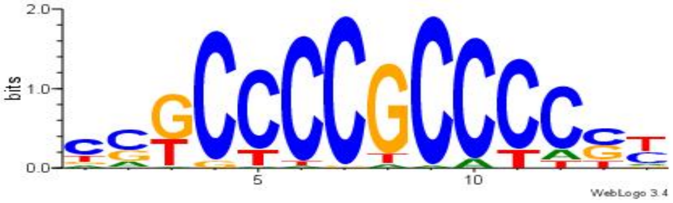


Dataset #:	2
Motif ID:	7
Motif name:	Motif 7
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	10
Similarity score:	0.0717594

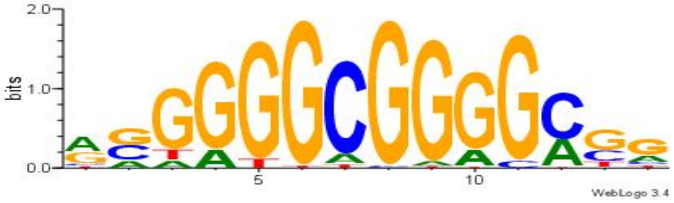
Alignment:

CSKCCCCGCCCCSY
CGGCYBCGCG----

Original motif Consensus sequence: CSKCCCCGCCCCSY

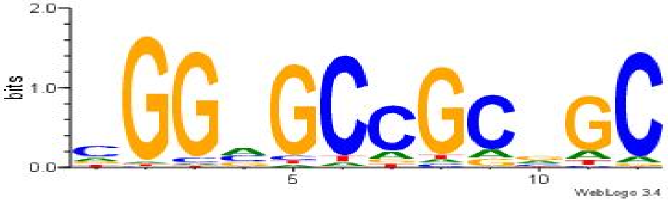


Reverse complement motif Consensus sequence: MSGGGGCGGGGY



Dataset #: 5 Motif ID: 49 Motif name: TFF1

Original motif   Consensus sequence: CGGVGCCGCVGC



Reverse complement motif   Consensus sequence: GCVGCGGCBCCG

Best Matches for Motif ID 49 (Highest to Lowest)

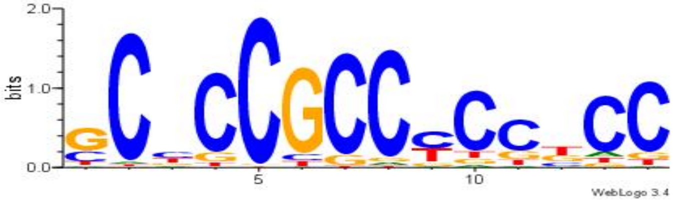
Dataset #:	5
Motif ID:	50
Motif name:	TFF11
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	12
Similarity score:	0.0292081

Alignment:

```
GGMGGRGGCGGVGC
--CGGVGCCGCVGC
```

Original motif   Consensus sequence: GGMGGRGGCGGVGC

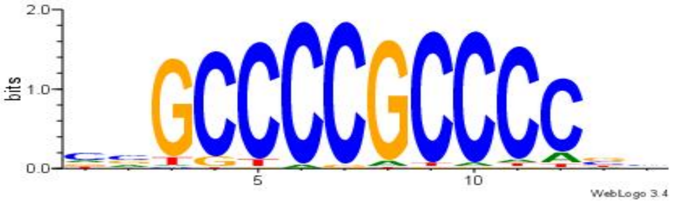
Reverse complement motif   Consensus sequence: GCVCCGCCMCCY



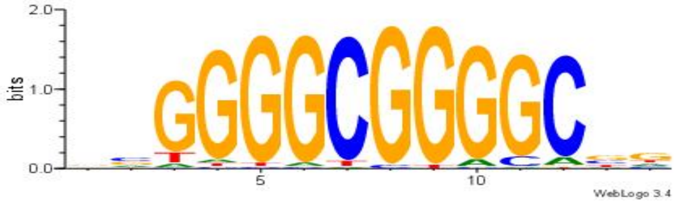
Dataset #:	4
Motif ID:	36
Motif name:	csGCCCCGCCCCsc
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	12
Similarity score:	0.0542674

Alignment:
HVGCCCCGCCCCBB
CGGVGCCGCVGC--

Original motif Consensus sequence: HVGCCCCGCCCCBB



Reverse complement motif Consensus sequence: BBGGGGCGGGGC



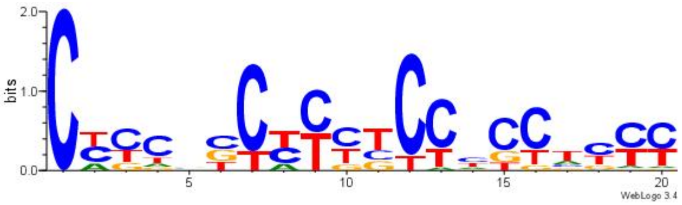
Dataset #:	5
Motif ID:	54
Motif name:	TFM12
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	12

Similarity score:	0.0543272

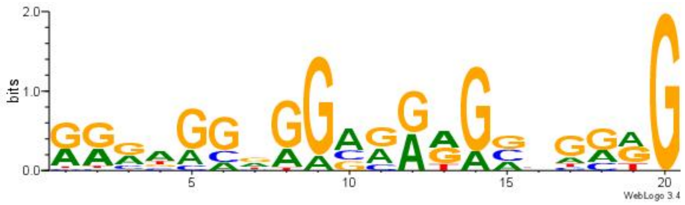
Alignment:

```
KKKAGGDGGAKKMGBBGKMG
------CGGVGCCGCVGC--
```

Original motif Consensus sequence: CYYCBBCYYYTCCHCCTYYY



Reverse complement motif Consensus sequence: KKKAGGDGGAKKMGBBGKMG



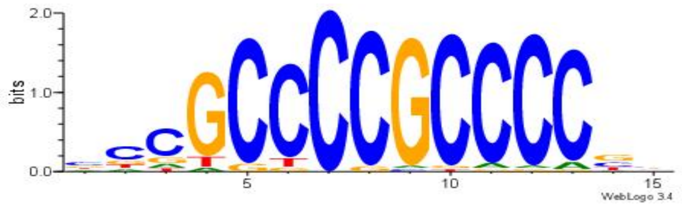
Dataset #:	4
Motif ID:	38
Motif name:	cccGCCCCGCCCCsb
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	12
Similarity score:	0.0548371

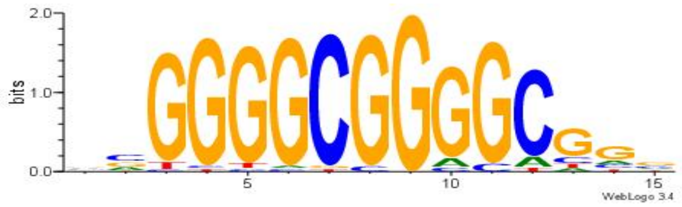
Alignment:

```
BBGGGGCGGGGCGGB
---CGGVGCCGCVGC
```

Original motif Consensus sequence: BCCGCCCCGCCCCBB

Reverse complement motif Consensus sequence: BBGGGGCGGGGCGGB



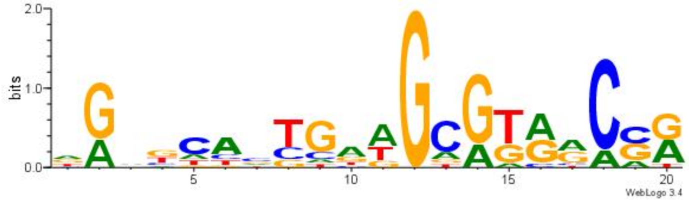


Dataset #:	3
Motif ID:	31
Motif name:	Pax5
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	12
Similarity score:	0.0556962

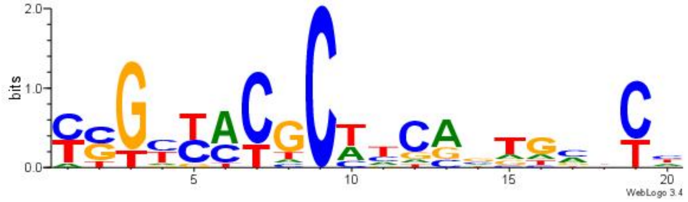
Alignment:

```
DGVBCABTGDWGCGKRRCSR
GCVGCGGCBCCG--------
```

Original motif   Consensus sequence: DGVBCABTGDWGCGKRRCSR



Reverse complement motif   Consensus sequence: MSGKKRCGCWDCABTGBBCD



Dataset #: 5   Motif ID: 50   Motif name: TFF11

Original motif   Consensus sequence: GGMGGRGGCGGVGC

Reverse complement motif   Consensus sequence: GCVCCGCCMCCYC

Best Matches for Motif ID 50 (Highest to Lowest)

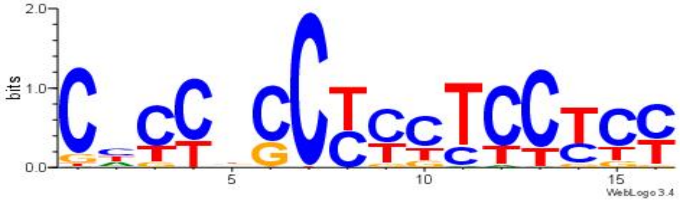
Dataset #:	5
Motif ID:	51
Motif name:	TFM2
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	14
Similarity score:	0.033716

Alignment:

```
RGRGGAGRRGGHGGDG
GGMGGRGGCGGVGC--
```

Original motif   Consensus sequence: RGRGGAGRRGGHGGDG

Reverse complement motif   Consensus sequence:
CHCCBCCKMCTCCKCM

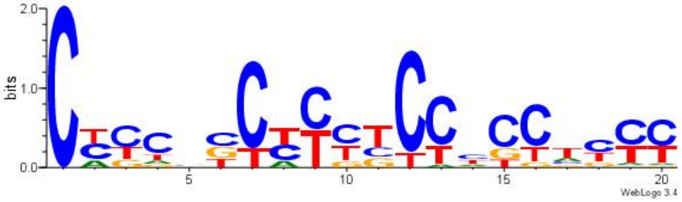


Dataset #:	5
Motif ID:	54
Motif name:	TFM12
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	6
Number of overlap:	14
Similarity score:	0.0386905

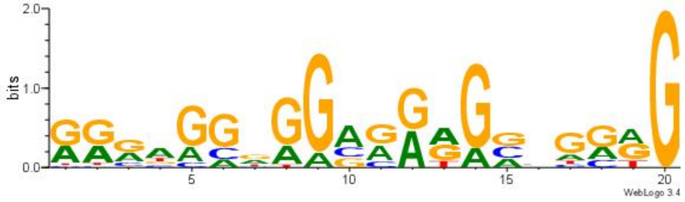
Alignment:

```
CYYCBBCYYYTCCHCCTYYY
-----GCVCCGCCMCCYCC-
```

Original motif Consensus sequence: CYYCBBCYYYTCCHCCTYYY



Reverse complement motif Consensus sequence: KKKAGGDGGAKKMGBBGKMG



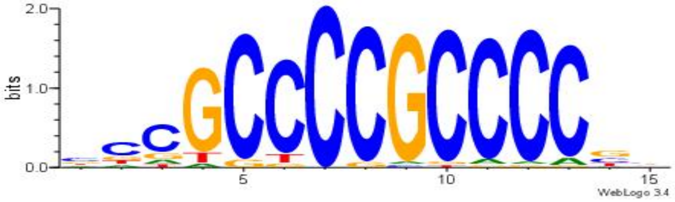
Dataset #:	4
Motif ID:	38
Motif name:	cccGCCCCGCCCCsb
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2

Number of overlap: 14
Similarity score: 0.0548198

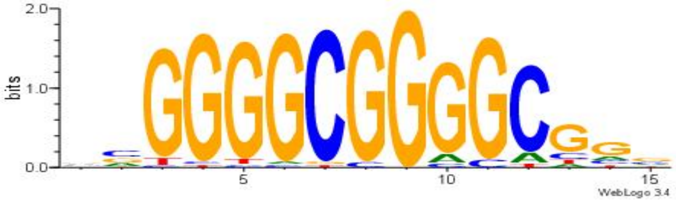
Alignment:

```
BBGGGGCGGGGCGGB
GGMGGRGGCGGVGC-
```

Original motif Consensus sequence: BCCGCCCCGCCCCBB



Reverse complement motif Consensus sequence: BBGGGGCGGGGCGGB

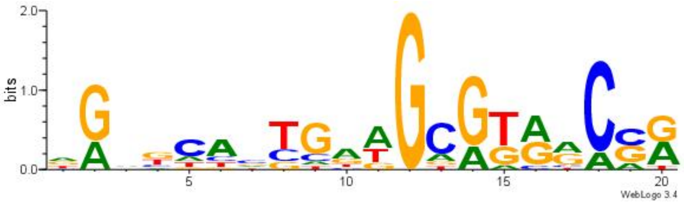


Dataset #: 3
Motif ID: 31
Motif name: Pax5
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 3
Number of overlap: 14
Similarity score: 0.0573129

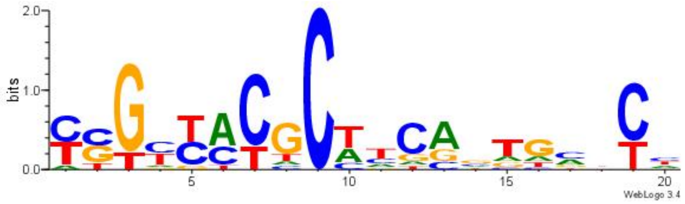
Alignment:

```
DGVBCABTGDWGCGKRRCSR
----GGMGGRGGCGGVGC--
```

Original motif Consensus sequence: DGVBCABTGDWGCGKRRCSR



Reverse complement motif Consensus sequence: MSGKKRCGCWDCABTGBBCD

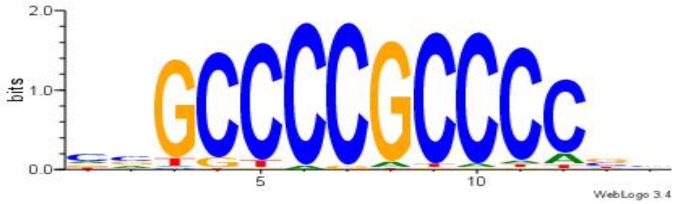


Dataset #: 4
Motif ID: 36
Motif name: csGCCCCGCCCCsc
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 1
Number of overlap: 14
Similarity score: 0.0652173

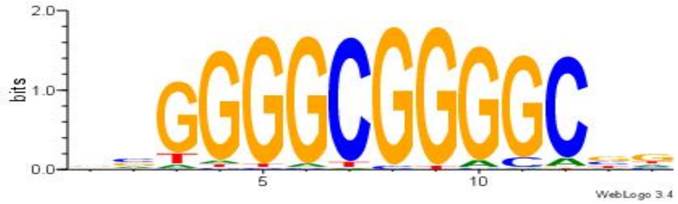
Alignment:

BBGGGGCGGGGCVD
GGMGGRGGCGGVGC

Original motif Consensus sequence: HVGCCCCGCCCCBB

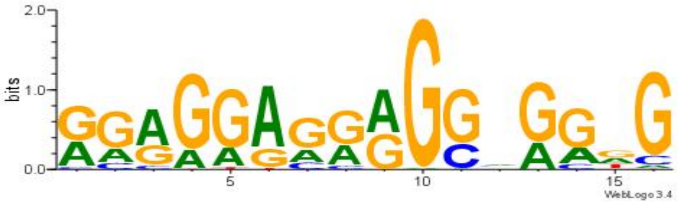


Reverse complement motif Consensus sequence: BBGGGGCGGGGC

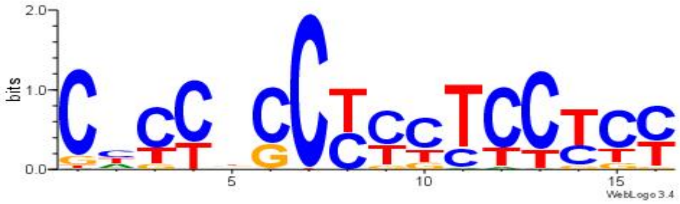


Dataset #: 5 Motif ID: 51 Motif name: TFM2

Original motif Consensus sequence: RGRGGAGRRGGHGGDG



Reverse complement motif Consensus sequence: CHCCBCCKMCTCCKCM



Best Matches for Motif ID 51 (Highest to Lowest)

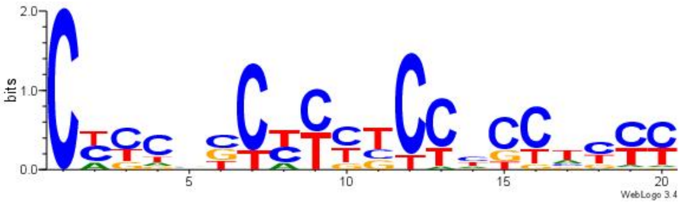
Dataset #:	5
Motif ID:	54
Motif name:	TFM12
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	16
Similarity score:	0.0331473

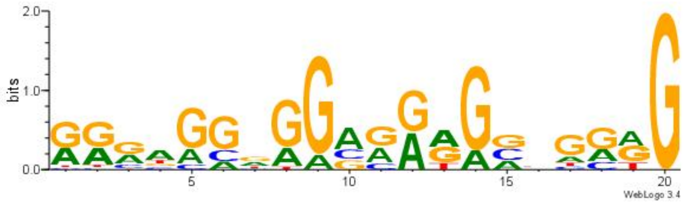
Alignment:

```
CYYCBBCYYYTCCHCCTYYY
CHCCBCCKMCTCCKCM----
```

Original motif Consensus sequence: CYYCBBCYYYTCCHCCTYYY

Reverse complement motif Consensus sequence: KKKAGGDGGAKKMGBBGKMG





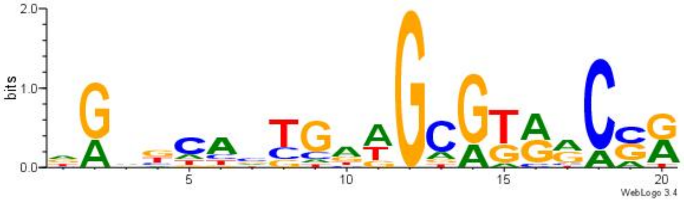
Dataset #:	3
Motif ID:	31
Motif name:	Pax5
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	16
Similarity score:	0.0668155

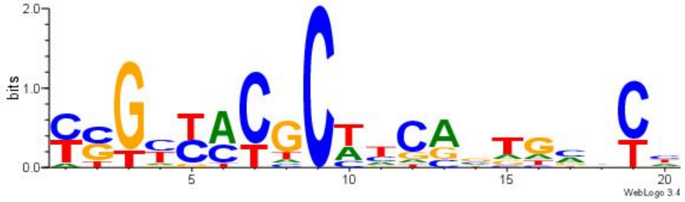
Alignment:

```
DGVBCABTGDWGCGKRRCSR
-RGRGGAGRRGGHGGDG---
```

Original motif Consensus sequence: DGVBCABTGDWGCGKRRCSR

Reverse complement motif Consensus sequence: MSGKKRCGCWDCABTGBBCD





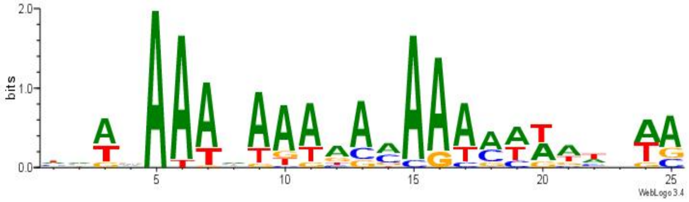
Dataset #:	5

Motif ID:	56
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:	16
Similarity score:	0.0794752

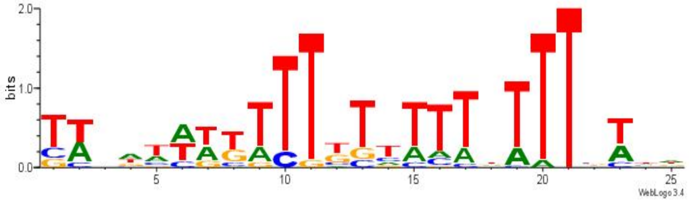
Alignment:

HDWVAAAHAAAAAMAAAMWWWHBWA
-------RGRGGAGRRGGHGGDG--

Original motif Consensus sequence:
HDWVAAAHAAAAAMAAAMWWWHBWA



Reverse complement motif Consensus sequence:
TWVHWWWYTTTYTTTTTHTTTVWBH



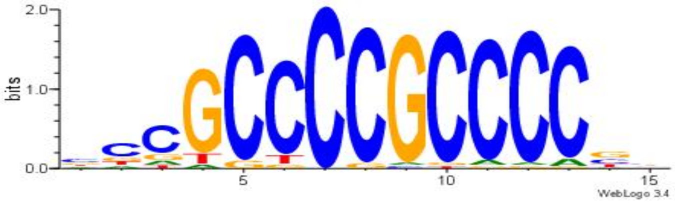
Dataset #:	4
Motif ID:	38
Motif name:	cccGCCCCGCCCCsb
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	15

Similarity score:	0.558405

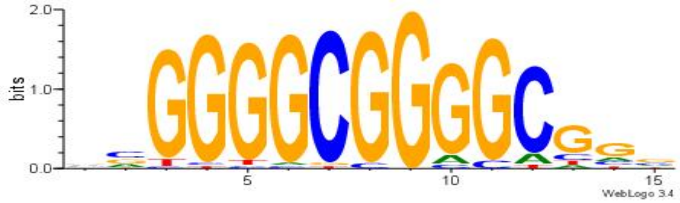
Alignment:

```
BCCGCCCCGCCCCBB-
CHCCBCCKMCTCCKCM
```

Original motif Consensus sequence: BCCGCCCCGCCCCBB



Reverse complement motif Consensus sequence: BBGGGGCGGGGCGGB



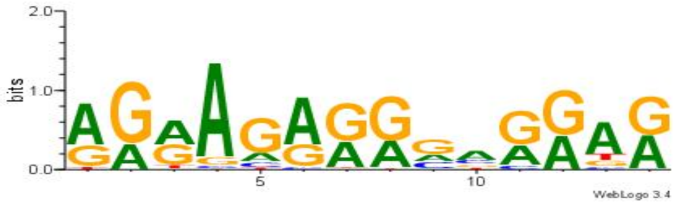
Dataset #:	2
Motif ID:	2
Motif name:	Motif 2
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	14
Similarity score:	1.01195

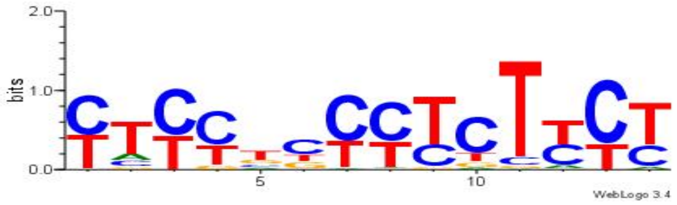
Alignment:

```
--RGRAGARRGARRAR
RGRGGAGRRGGHGGDG
```

Original motif Consensus sequence: RGRAGARRGARRAR

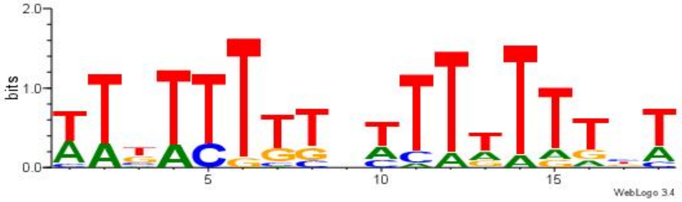
Reverse complement motif Consensus sequence: MTMMTCMMTCTK



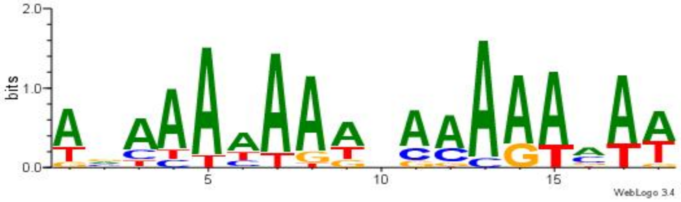


Dataset #: 5 Motif ID: 52 Motif name: TFM1

Original motif Consensus sequence: WTKTTTTTHWTTTTTTBT



Reverse complement motif Consensus sequence: ABAAAAAAWHAAAAARAW



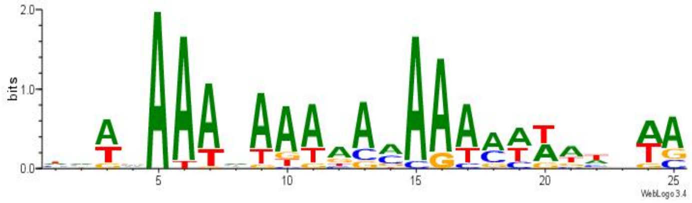
Best Matches for Motif ID 52 (Highest to Lowest)

Dataset #:	5
Motif ID:	56
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:	18
Similarity score:	0

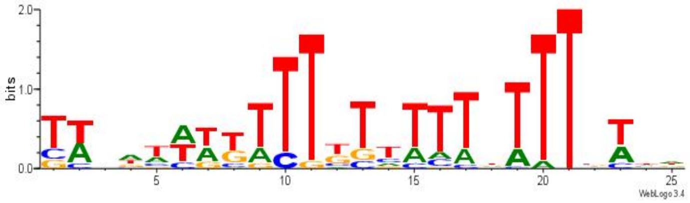
Alignment:

```
TWVHWWWYTTTYTTTTTHTTTVWBH
-----WTKTTTTTHWTTTTTTTBT--
```

Original motif Consensus sequence:
HDWVAAAHAAAAAMAAAMWWWHBWA



Reverse complement motif Consensus sequence:
TWVHWWWYTTTYTTTTTHTTTVWBH



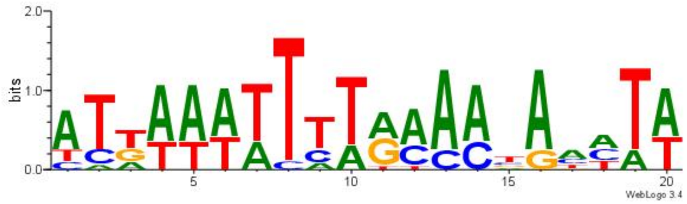
Dataset #:	5
Motif ID:	55
Motif name:	TFM13
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	18
Similarity score:	0.0364672

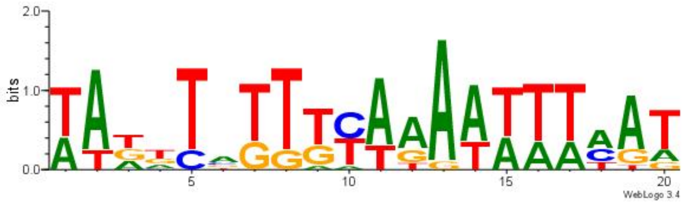
Alignment:

```
ATKAAWTTTTRMAABAHHTW
ABAAAAAAWHAAAAARAW--
```

Original motif Consensus sequence: ATKAAWTTTTRMAABAHHTW

Reverse complement motif Consensus sequence:
WAHHTVTTYKAAAAWTTRAT



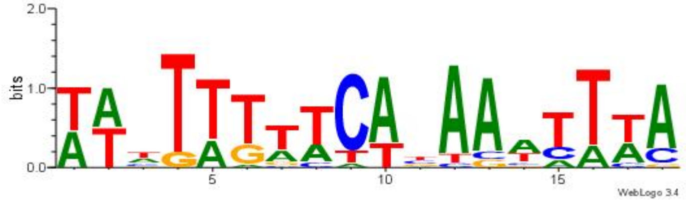


Dataset #:	5
Motif ID:	53
Motif name:	TFM3
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	18
Similarity score:	0.0456974

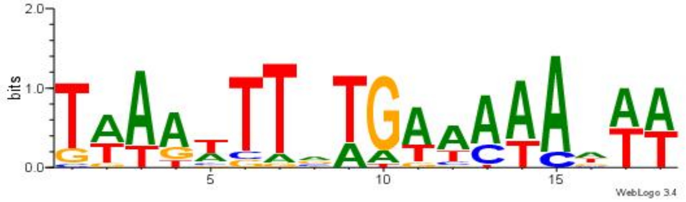
Alignment:

```
WWHTTTTTCABAAWTTWA
WTKTTTTTHWTTTTTTBT
```

Original motif Consensus sequence: WWHTTTTTCABAAWTTWA



Reverse complement motif Consensus sequence: TWAAWTTVTGAAAAAHWW



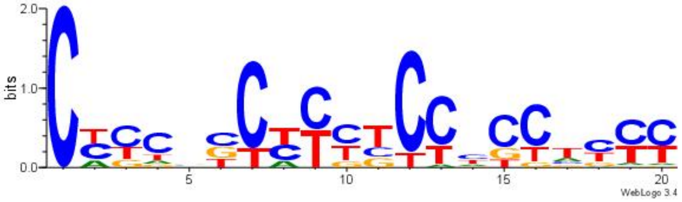
Dataset #: 5

Motif ID:	54
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:	0.572783

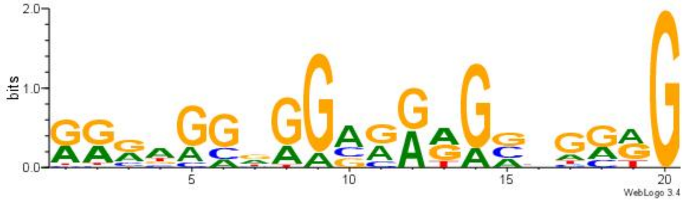
Alignment:

```
CYYCBBCYYYTCCHCCTYYY-
---WTKTTTTTHWTTTTTTBT
```

Original motif   Consensus sequence: CYYCBBCYYYTCCHCCTYYY



Reverse complement motif   Consensus sequence: KKKAGGDGGAKKMGBBGKMG



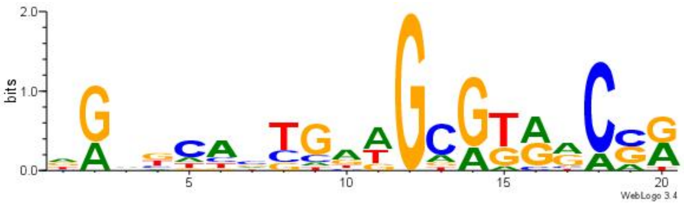
Dataset #:	3
Motif ID:	31
Motif name:	Pax5
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	5
Number of overlap:	16

Similarity score:	1.07322

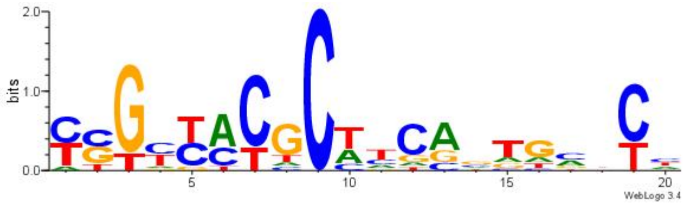
Alignment:

```
--MSGKKRCGCWDCABTGBBCD
WTKTTTTTHWTTTTTTBT----
```

Original motif Consensus sequence: DGVBCABTGDWGCGKRRCSR

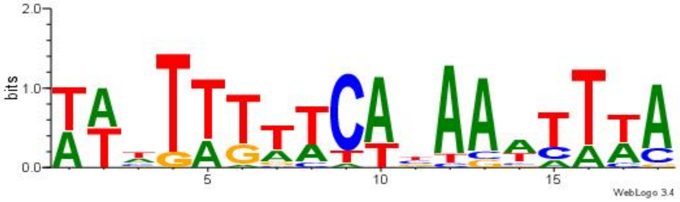


Reverse complement motif Consensus sequence: MSGKKRCGCWDCABTGBBCD

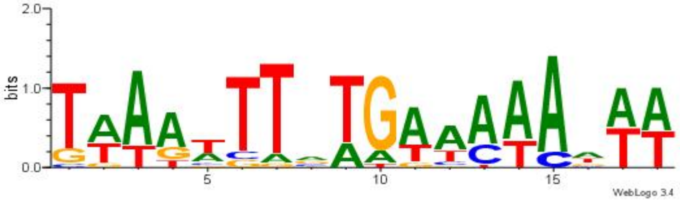


Dataset #: 5 Motif ID: 53 Motif name: TFM3

Original motif Consensus sequence: WWHTTTTTCABAAWTTWA



Reverse complement motif Consensus sequence: TWAAWTTVTGAAAAAHWW



Best Matches for Motif ID 53 (Highest to Lowest)

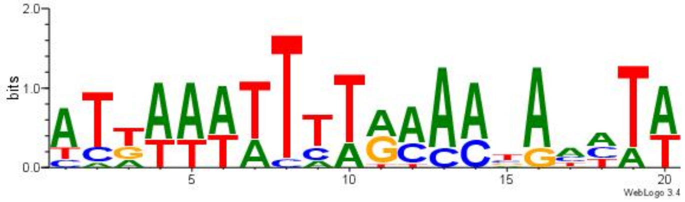
Dataset #:	5
Motif ID:	55
Motif name:	TFM13
Matching format of first motif:	Reverse Complement

Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	18
Similarity score:	0.013876

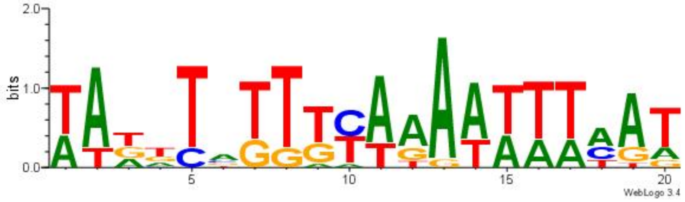
Alignment:

```
ATKAAWTTTTRMAABAHHTW
-TWAAWTTVTGAAAAAHWW-
```

Original motif Consensus sequence: ATKAAWTTTTRMAABAHHTW



Reverse complement motif Consensus sequence: WAHHTVTTYKAAAAWTTRAT

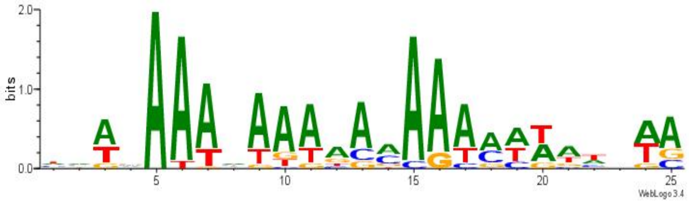


Dataset #:	5
Motif ID:	56
Motif name:	TFM11
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	5
Number of overlap:	18
Similarity score:	0.0402327

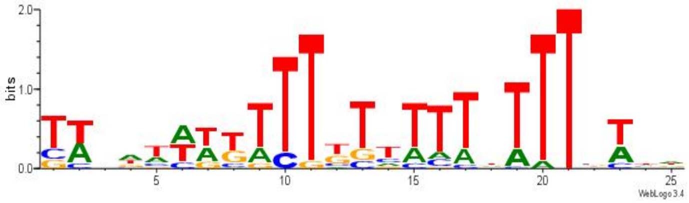
Alignment:

```
TWVHWWWYTTTYTTTTTHTTTVWBH
----WWHTTTTTCABAAWTTWA---
```

Original motif Consensus sequence:
HDWVAAAHAAAAAMAAAMWWWHBWA



Reverse complement motif Consensus sequence:
TWVHWWWYTTTYTTTTTHTTTVWBH



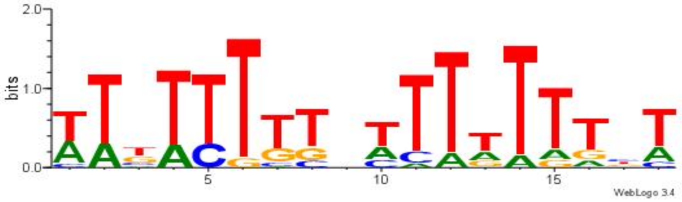
Dataset #:	5
Motif ID:	52
Motif name:	TFM1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	18
Similarity score:	0.0432207

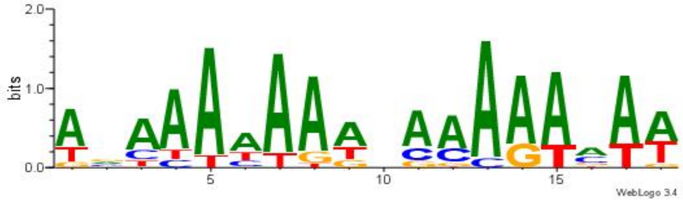
Alignment:

```
WTKTTTTTHWTTTTTTTBT
WWHTTTTTCABAAWTTWA
```

Original motif Consensus sequence: WTKTTTTTHWTTTTTTTBT

Reverse complement motif Consensus sequence:
ABAAAAAAAWHAAAAARAW



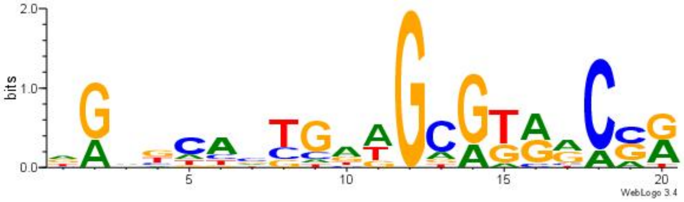


Dataset #: 3
Motif ID: 31
Motif name: Pax5
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 4
Number of overlap: 17
Similarity score: 0.561883

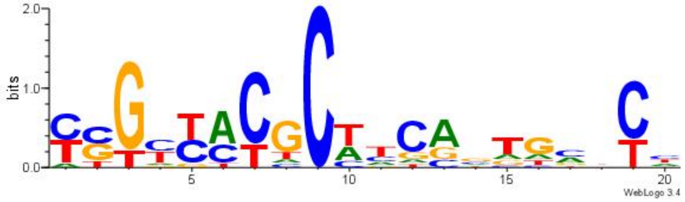
Alignment:

```
-MSGKKRCGCWDCABTGBBCD
WWHTTTTTCABAAWTTWA---
```

Original motif Consensus sequence: DGVBCABTGDWGCGKRRCSR



Reverse complement motif Consensus sequence: MSGKKRCGCWDCABTGBBCD



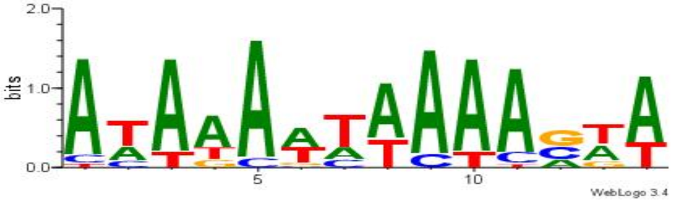
Dataset #: 2

Motif ID:	3
Motif name:	Motif 3
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:	2.04564

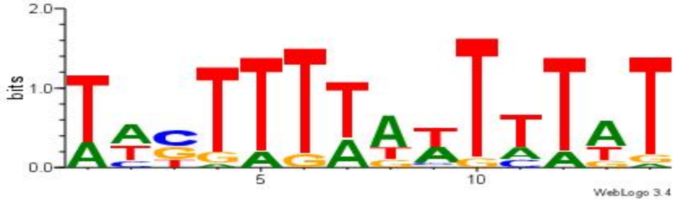
Alignment:

```
----TWSTTTWAWTTTWT
WWHTTTTTCABAAWTTWA
```

Original motif Consensus sequence: AWAAAWTWAAASWA

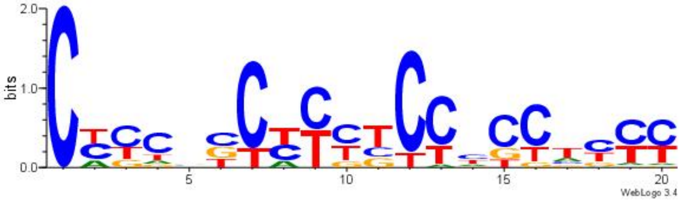


Reverse complement motif Consensus sequence: TWSTTTWAWTTTW

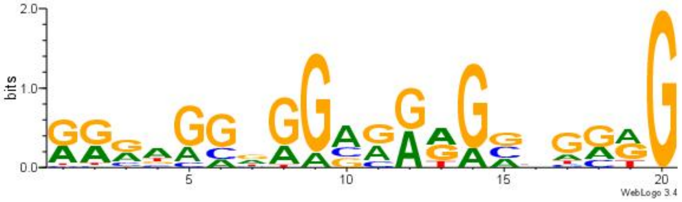


Dataset #: 5 **Motif ID: 54** **Motif name: TFM12**

Original motif Consensus sequence: CYYCBBCYYYTCCHCCTYYY



Reverse complement motif Consensus sequence: KKKAGGDGGAKKMGBBGKMG



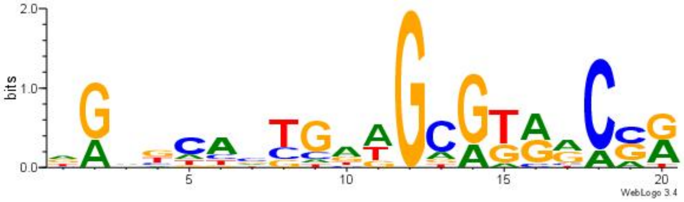
Best Matches for Motif ID 54 (Highest to Lowest)

Dataset #:	3
Motif ID:	31
Motif name:	Pax5
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	20
Similarity score:	0.0458155

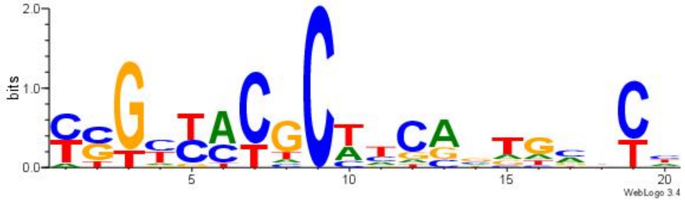
Alignment:

```
MSGKKRCGCWDCABTGBBCD
CYYCBBCYYYTCCHCCTYYY
```

Original motif Consensus sequence: DGVBCABTGDWGCGKRRCSR



Reverse complement motif Consensus sequence: MSGKKRCGCWDCABTGBBCD



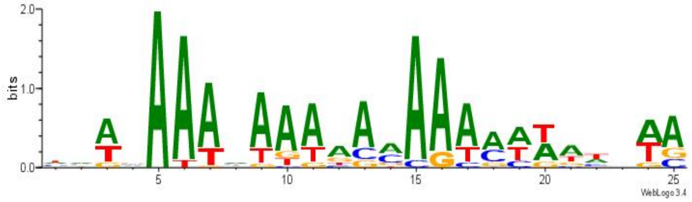
Dataset #:	5
Motif ID:	56
Motif name:	TFM11
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement

Direction:	Backward
Position number:	6
Number of overlap:	20
Similarity score:	0.0573204

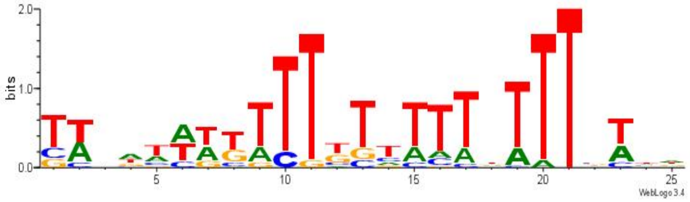
Alignment:

```
TWVHWWWYTTTYTTTTTHTTTVWBH
CYYCBBCYYYTCCHCCTYYY-----
```

Original motif Consensus sequence:
HDWVAAAHAAAAAMAAAMWWWHBWA



Reverse complement motif Consensus sequence:
TWVHWWWYTTTYTTTTTHTTTVWBH

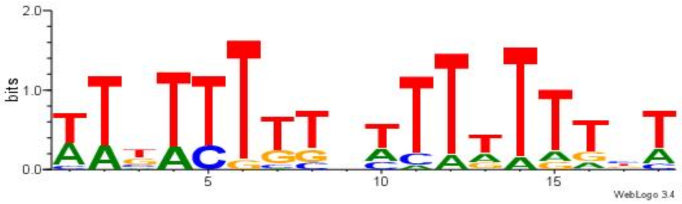


Dataset #:	5
Motif ID:	52
Motif name:	TFM1
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	17
Similarity score:	1.56255

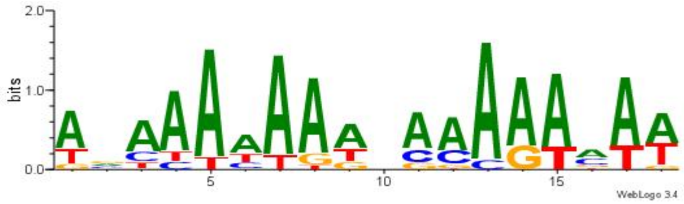
Alignment:

```
---WTKTTTTTTHWTTTTTTTBT
CYYCBBCYYYTCCHCCTYYY-
```

Original motif Consensus sequence: WTKTTTTTHWTTTTTTBT



Reverse complement motif Consensus sequence:
ABAAAAAAWHAAAAARAW

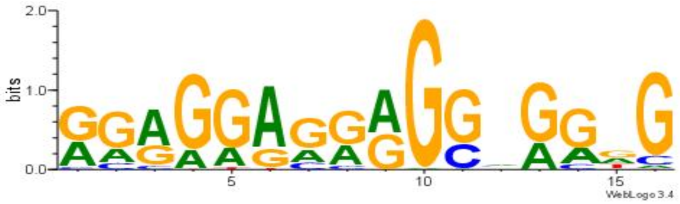


Dataset #:	5
Motif ID:	51
Motif name:	TFM2
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	16
Similarity score:	2.01568

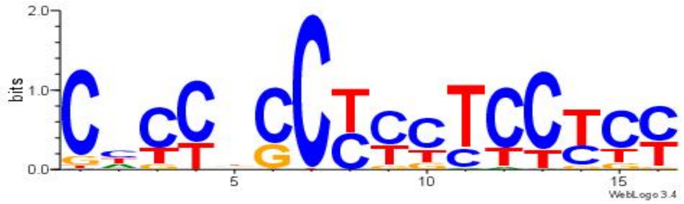
Alignment:

```
RGRGGAGRRGGHGGDG----
KKKAGGDGGAKKMGBBGKMG
```

Original motif Consensus sequence: RGRGGAGRRGGHGGDG



Reverse complement motif Consensus sequence:
CHCCBCCKMCTCCKCM

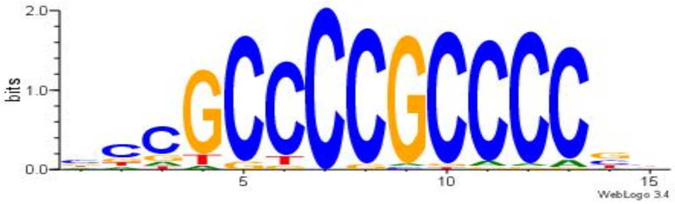


Dataset #:	4
Motif ID:	38
Motif name:	cccGCCCCGCCCCsb
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	15
Similarity score:	2.55221

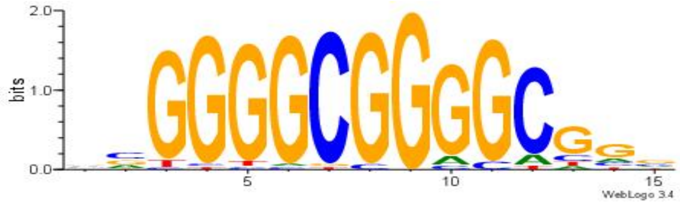
Alignment:

```
-----BCCGCCCCGCCCCBB
CYYCBBCYYYTCCHCCTYYY
```

Original motif Consensus sequence: BCCGCCCCGCCCCBB



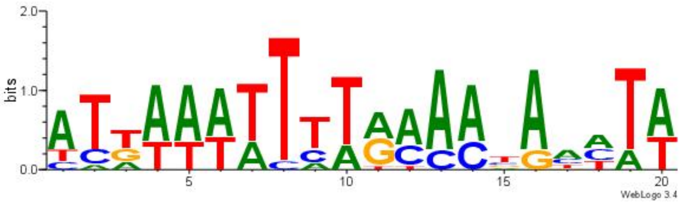
Reverse complement motif Consensus sequence: BBGGGGCGGGGCGGB

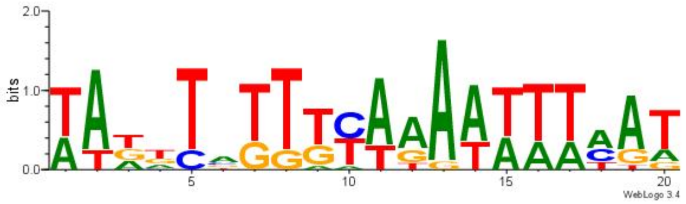


Dataset #: 5 Motif ID: 55 Motif name: TFM13

Original motif Consensus sequence: ATKAAWTTTTRMAABAHHTW

Reverse complement motif Consensus sequence: WAHHTVTTYKAAAAWTTRAT





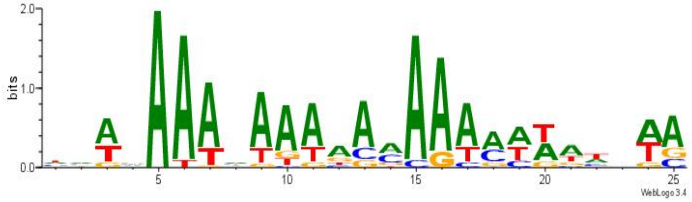
Best Matches for Motif ID 55 (Highest to Lowest)

Dataset #:	5
Motif ID:	56
Motif name:	TFM11
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	5
Number of overlap:	20
Similarity score:	0.0352451

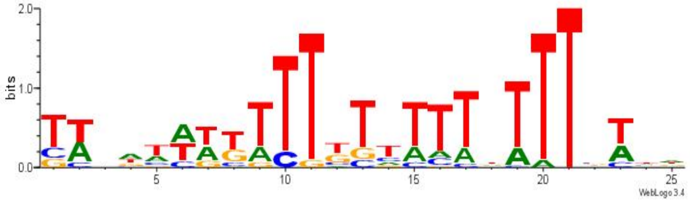
Alignment:

```
TWVHWWWYTTTYTTTTTHTTTVWBH
----WAHHTVTTYKAAAAWTTRAT-
```

Original motif Consensus sequence:
HDWVAAAHAAAAAMAAAMWWWHBWA



Reverse complement motif Consensus sequence:
TWVHWWWYTTTYTTTTTHTTTVWBH

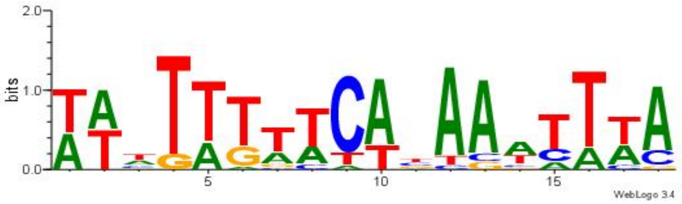


Dataset #: 5
Motif ID: 53
Motif name: TFM3
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 1
Number of overlap: 18
Similarity score: 1.02254

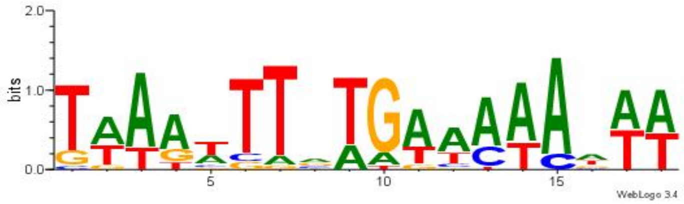
Alignment:

```
TWAAWTTVTGAAAAAHWW--
ATKAAWTTTTRMAABAHHTW
```

Original motif Consensus sequence: WWHTTTTTCABAAWTTWA



Reverse complement motif Consensus sequence: TWAAWTTVTGAAAAAHWW

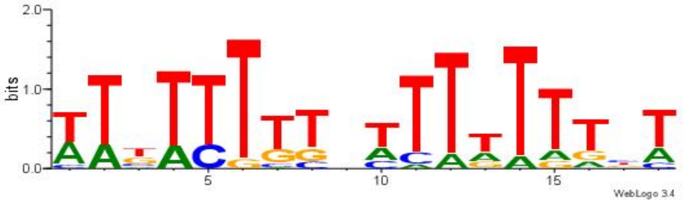


Dataset #: 5
Motif ID: 52
Motif name: TFM1
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Forward
Position number: 1

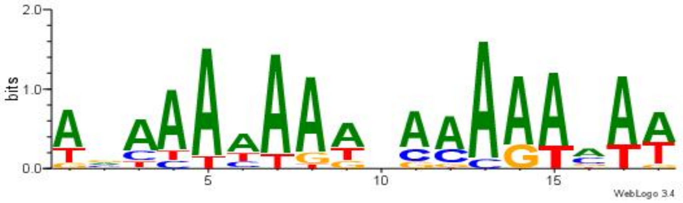
Number of overlap: 18
Similarity score: 1.02868

Alignment:
```
WTKTTTTTHWTTTTTTTBT--
WAHHTVTTYKAAAAWTTRAT
```

Original motif Consensus sequence: WTKTTTTTHWTTTTTTTBT



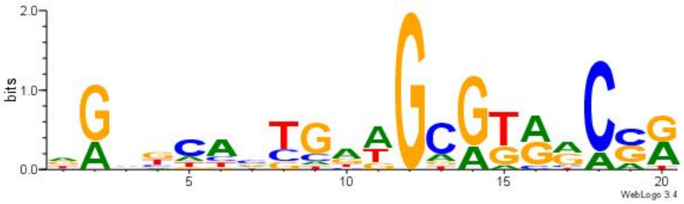
Reverse complement motif Consensus sequence: ABAAAAAAAWHAAAAARAW



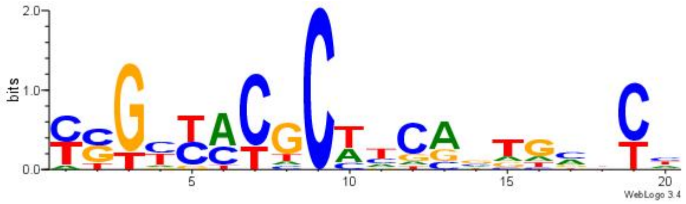
Dataset #: 3
Motif ID: 31
Motif name: Pax5
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 6
Number of overlap: 15
Similarity score: 2.56565

Alignment:
```
-----MSGKKRCGCWDCABTGBBCD
WAHHTVTTYKAAAAWTTRAT-----
```

Original motif   Consensus sequence: DGVBCABTGDWGCGKRRCSR



Reverse complement motif   Consensus sequence: MSGKKRCGCWDCABTGBBCD



Dataset #: 2

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: 1

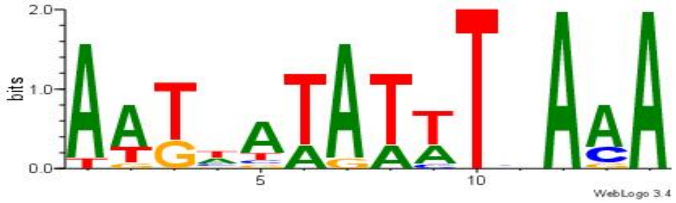
Number of overlap: 14

Similarity score: 3.02278

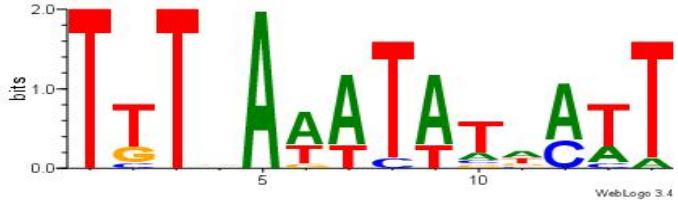
Alignment:

```
------TTTDAWATATHATT
WAHHTVTTYKAAAAWTTRAT
```

Original motif   Consensus sequence: AATHATATWTHAAA

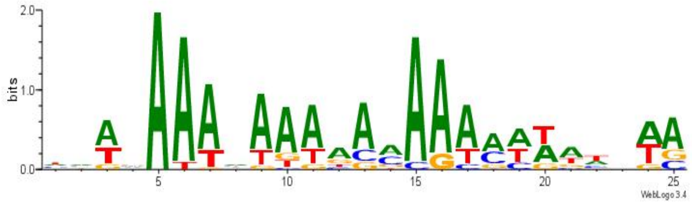


Reverse complement motif   Consensus sequence: TTTDAWATATHAT

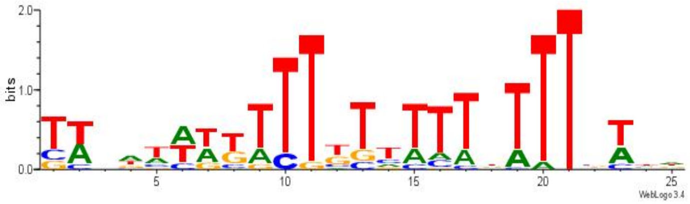


Dataset #: 5 Motif ID: 56 Motif name: TFM11

Original motif Consensus sequence:
HDWVAAAHAAAAAMAAAMWWWHBWA



Reverse complement motif Consensus sequence:
TWVHWWWYTTTYTTTTTHTTTVWBH



Best Matches for Motif ID 56 (Highest to Lowest)

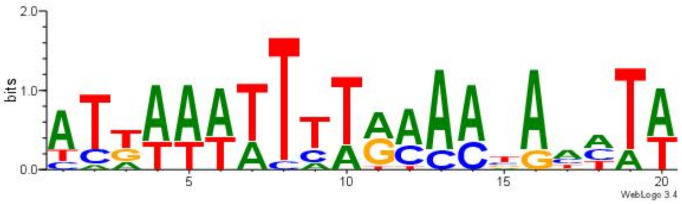
Dataset #:	5
Motif ID:	55
Motif name:	TFM13
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	20
Similarity score:	0.0486765

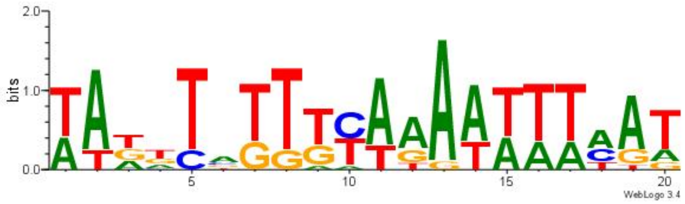
Alignment:

```
WAHHTVTTYKAAAAWTTRAT-----
TWVHWWWYTTTYTTTTTHTTTVWBH
```

Original motif Consensus sequence: ATKAAWTTTTRMAABAHHTW

Reverse complement motif Consensus sequence:
WAHHTVTTYKAAAAWTTRAT





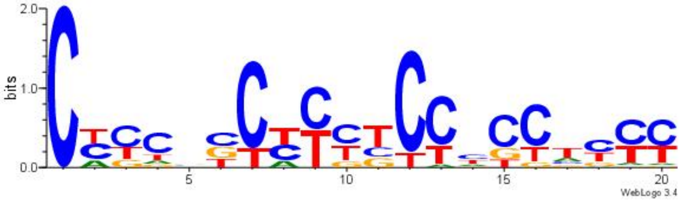
Dataset #:	5
Motif ID:	54
Motif name:	TFM12
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	20
Similarity score:	0.0693284

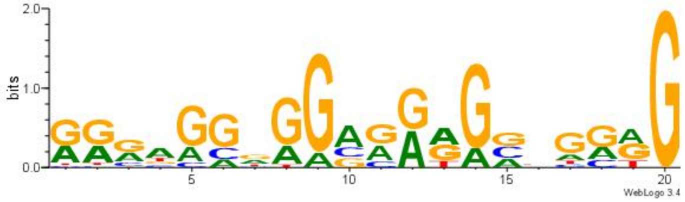
Alignment:

```
KKKAGGDGGAKKMGBBGKMG-----
HDWVAAAHAAAAAMAAAMWWWHBWA
```

Original motif Consensus sequence: CYYCBBCYYYTCCHCCTYYY

Reverse complement motif Consensus sequence: KKKAGGDGGAKKMGBBGKMG





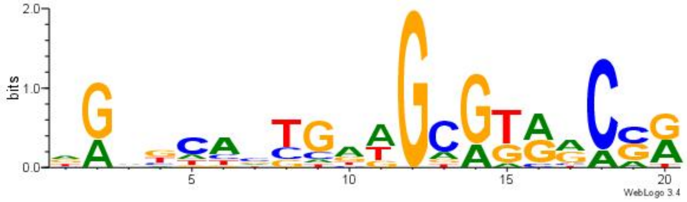
Dataset #:	3

Motif ID: 31
Motif name: Pax5
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 1
Number of overlap: 20
Similarity score: 0.0750613

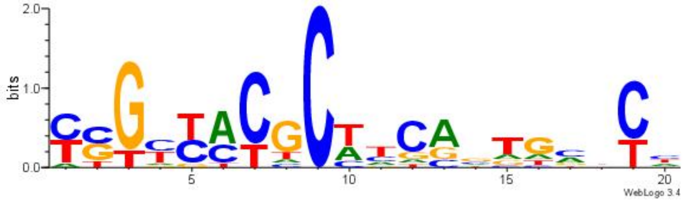
Alignment:

```
DGVBCABTGDWGCGKRRCSR-----
HDWVAAAHAAAAAMAAAMWWWHBWA
```

Original motif Consensus sequence: DGVBCABTGDWGCGKRRCSR



Reverse complement motif Consensus sequence: MSGKKRCGCWDCABTGBBCD



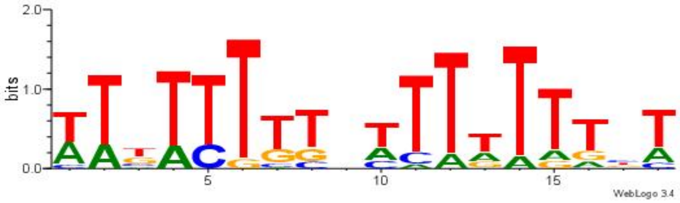
Dataset #: 5
Motif ID: 52
Motif name: TFM1
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 1
Number of overlap: 18

Similarity score: 1.0232

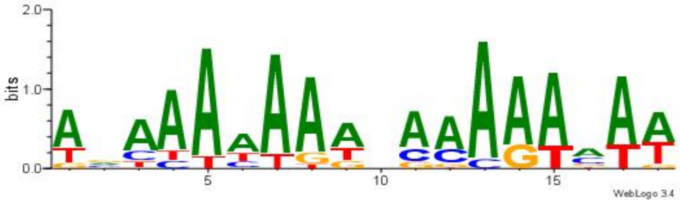
Alignment:

```
-------ABAAAAAAWHAAAAARAW
HDWVAAAHAAAAAMAAAMWWWHBWA
```

Original motif Consensus sequence: WTKTTTTTHWTTTTTTBT



Reverse complement motif Consensus sequence:
ABAAAAAAWHAAAAARAW



Dataset #: 5
Motif ID: 53
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: 18
Similarity score: 1.05388

Alignment:

```
WWHTTTTTCABAAWTTWA-------
TWVHWWWYTTTYTTTTTHTTTVWBH
```

Original motif Consensus sequence: WWHTTTTTCABAAWTTWA

Reverse complement motif Consensus sequence:
TWAAWTTVTGAAAAAHWW

Results created by MOTIFSIM on 02-03-2023 09:15:18
Runtime: 362.144 seconds

MOTIFSIM is written by Ngoc Tam L. Tran
Motif logo generated by weblogo