MOTIFSIM - MOTIF SIMilarity Detection Tool

Version 2.2

INPUT

Input Parameters

Number of files:	2
Number of top significant motifs:	10
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
W-ChIPMotifs_DM230.txt	11	1
RSAT_peak-motifs_DM230.txt	10	2

RESULTS

Best Matches in Database for Each Motif (Highest to Lowest)

Dataset #: 1   Motif ID: 1   Motif name: TFW1

Original motif

Consensus sequence: GTCGCG

Reverse complement motif

Consensus sequence: CGCGAC

Best Matches for Motif ID 1 (Highest to Lowest)

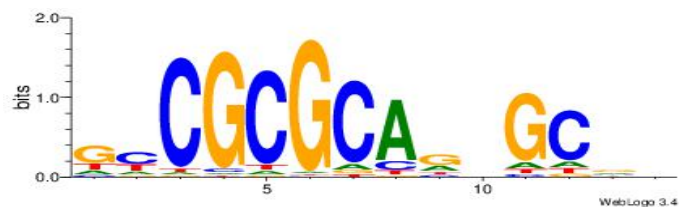|	
Motif ID:	UP00065
Motif name:	Zfp161_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	9
Number of overlap:	6
Similarity score:	0

Alignment:

```
GYCGCGCARBGCVB
GTCGCG--------
```
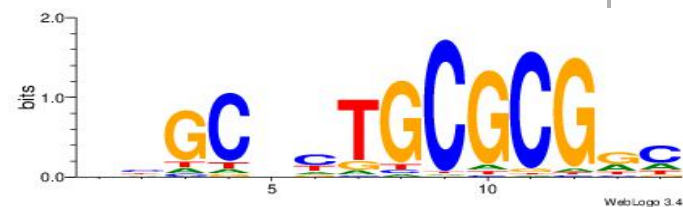
Original motif
Consensus sequence: GYCGCGCARBGCVB

Reverse complement motif
Consensus sequence: VVGCVMTGCGCGKC

Motif ID: UP00060
Motif name: Max_secondary
Species: Mus musculus
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Backward
Position number: 3
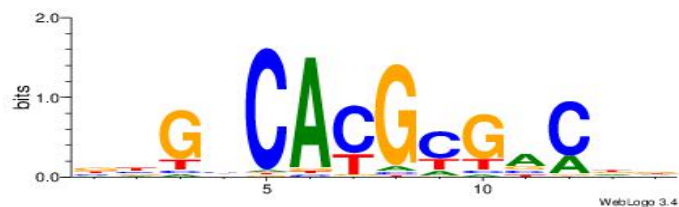Number of overlap: 6
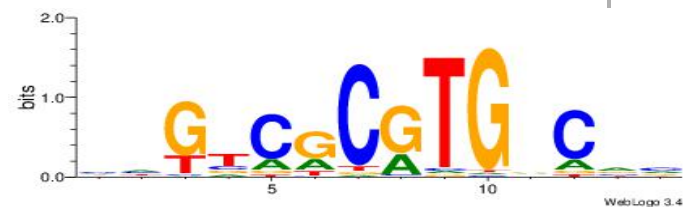Similarity score: 0.00875457

Alignment:
BBGHCACGCGACDD
------CGCGAC--

Original motif
Consensus sequence: BBGHCACGCGACDD

Reverse complement motif
Consensus sequence: HDGTCGCGTGDCVB

Motif ID: UP00003
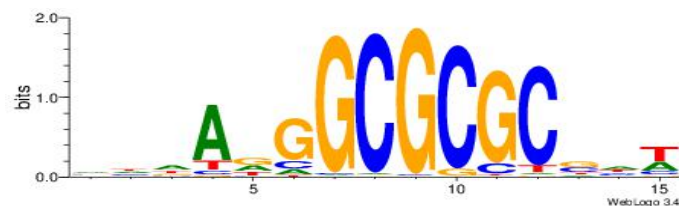
Motif name: E2F3_primary

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Reverse Complement

Direction: Backward

Position number: 6

Number of overlap: 6

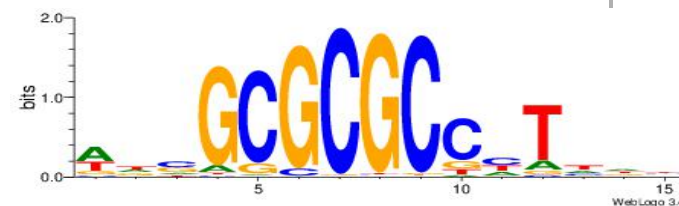Similarity score: 0.0102952

Alignment:

```
WHSGCGCGCCHTDHB
----CGCGAC-----
```

Original motif   Reverse complement motif

Consensus sequence: VHDADGGCGCGCSHW   Consensus sequence: WHSGCGCGCCHTDHB

Motif ID: UP00526

Motif name: Foxn1_primary

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Original Motif
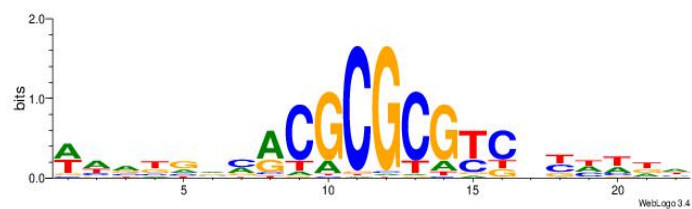
Direction: Backward

Position number: 7

Number of overlap: 6
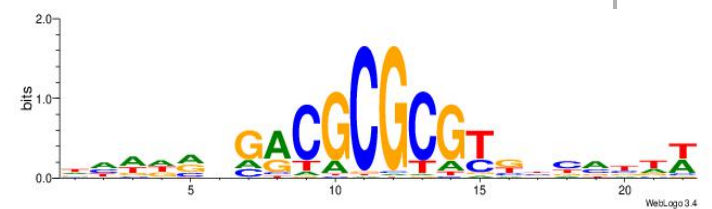
Similarity score: 0.0119605

Alignment:

```
WHVBVVMACGCGCGTCDYHWDH
----------CGCGAC------
```

Original motif

Consensus sequence: WHVBVVMACGCGCGTCDYHWDH

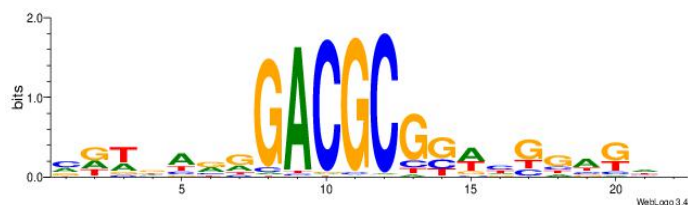Reverse complement motif

Consensus sequence: HDWHMHGACGCGCGTRBVVBHW

Motif ID: UP00527

Motif name: Foxn4_secondary

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Original Motif

Direction: Backward

Position number: 10

Number of overlap: 6

Similarity score: 0.014366

Alignment:

```
VDWDARRGACGCGGWHGGAKHV
-------GTCGCG---------
```
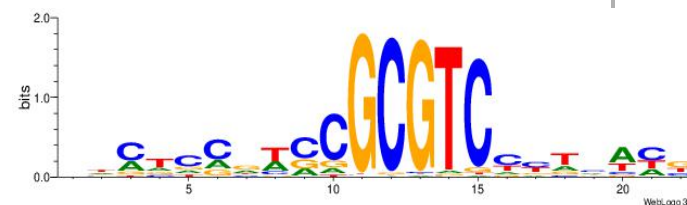
Original motif

Consensus sequence: VDWDARRGACGCGGWHGGAKHV
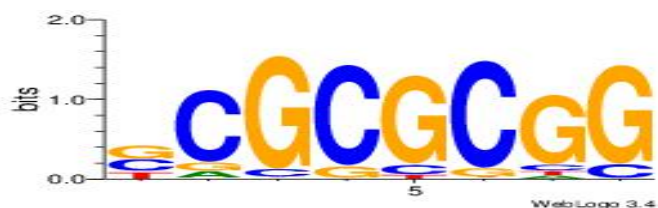

Reverse complement motif

Consensus sequence: VHYTCCDWCCGCGTCMMTHWHV

Dataset #: 1   Motif ID: 2   Motif name: TFW2

Original motif

Consensus sequence: SCGCGCGG

Reverse complement motif

Consensus sequence: CCGCGCGS

Best Matches for Motif ID 2 (Highest to Lowest)

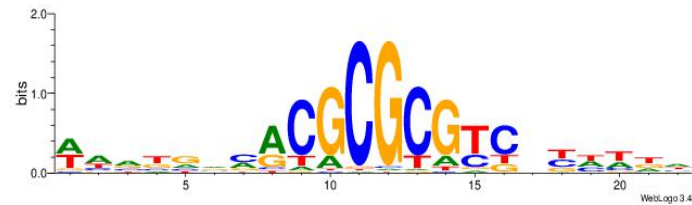|	
Motif ID:	UP00526
Motif name:	Foxn1_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	8
Number of overlap:	8
Similarity score:	0

Alignment:
```
HDWHMHGACGCGCGTRBVVBHW
-------CCGCGCGS-------
```

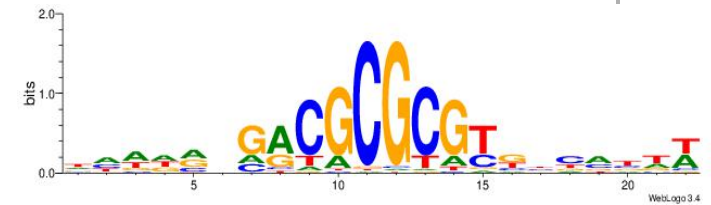Original motif
Consensus sequence: WHVBVVMACGCGCGTCDYHWDH

Reverse complement motif
Consensus sequence: HDWHMHGACGCGCGTRBVVBHW

Motif ID:	UP00065
Motif name:	Zfp161_secondary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	8
Similarity score:	0.00228411

Alignment:
```
VVGCVMTGCGCGKC
-----CCGCGCGS-
```

Original motif
Consensus sequence: GYCGCGCARBGCVB

Reverse complement motif
Consensus sequence: VVGCVMTGCGCGKC

Motif ID: UP00003

Motif name: E2F3_primary

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Reverse Complement

Direction: Backward

Position number: 7
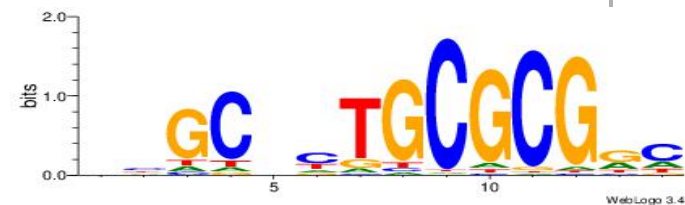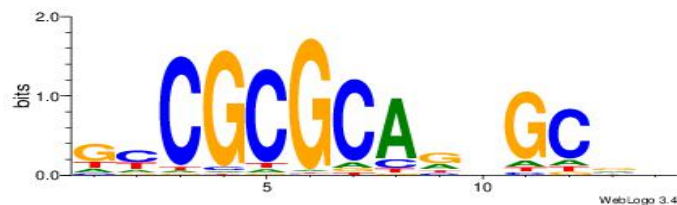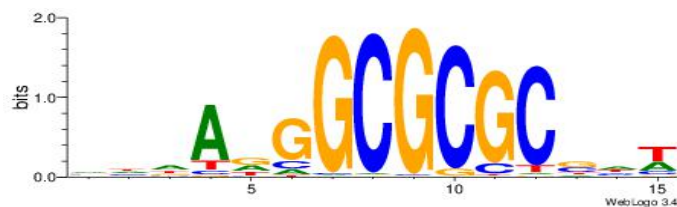
Number of overlap: 8

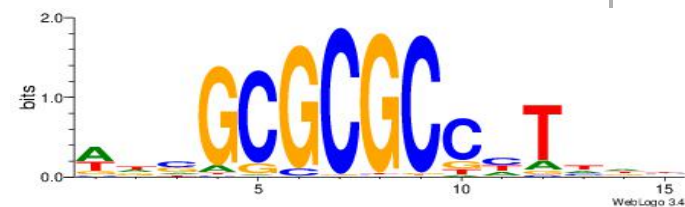Similarity score: 0.00337853

Alignment:
```
WHSGCGCGCCHTDHB
-CCGCGCGS------
```

Original motif   Reverse complement motif

Consensus sequence: VHDADGGCGCGCSHW   Consensus sequence: WHSGCGCGCCHTDHB

Motif ID: UP00001

Motif name: E2F2_primary

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Reverse Complement

Direction: Forward

Position number: 2

Number of overlap: 8
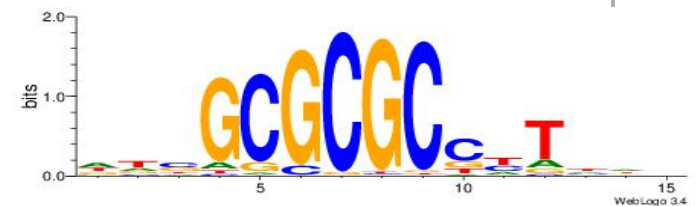
Similarity score: 0.00399923

Alignment:
```
HHVGCGCGCCKTDHB
-CCGCGCGS------
```

Original motif

Consensus sequence: VHDARGGCGCGCVHH
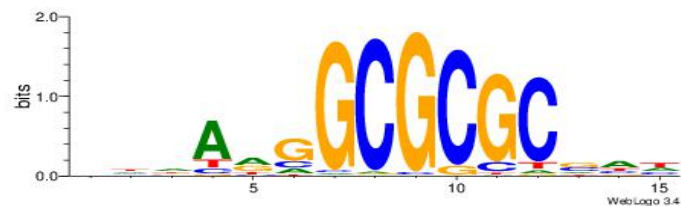
Reverse complement motif

Consensus sequence: HHVGCGCGCCKTDHB

Motif ID: UP00065

Motif name: Zfp161_primary

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Original Motif

Direction: Backward

Position number: 5

Number of overlap: 8

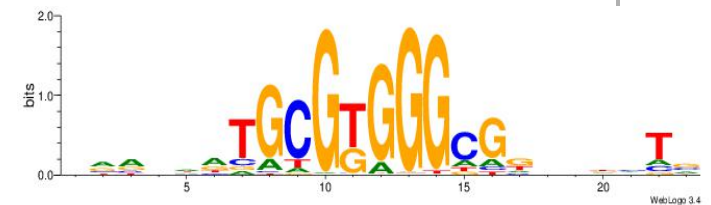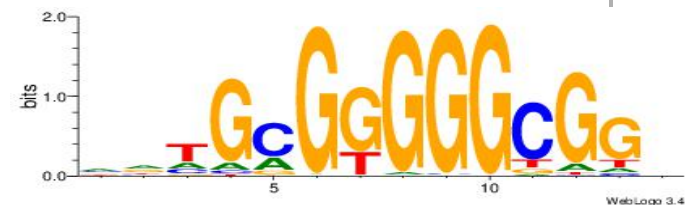Similarity score: 0.00484534

Alignment:
DDGCGCGCGCRCHYRD
----CCGCGCGS----

Original motif   Reverse complement motif

Consensus sequence: DDGCGCGCGCRCHYRD   Consensus sequence: DMMDGMGCGCGCGCHD

Dataset #: 1   Motif ID: 3   Motif name: TFW3

Original motif   Reverse complement motif

Consensus sequence: CGGCYBCGCG   Consensus sequence: CGCGBMGCCG

Best Matches for Motif ID 3 (Highest to Lowest)

Motif ID:	UP00400
Motif name:	Zif268
Species:	Mus musculus
Matching format of first motif:	Reverse Complement

Matching format of second motif: Reverse Complement

Direction: Backward

Position number: 8

Number of overlap: 10

Similarity score: 0.0331859

Alignment:

```
VVVDHHTGCGYGGGCGDHVHHTB
------CGCGBMGCCG-------
```

Original motif

Consensus sequence: BADHBDHCGCCCMCGCAHHDBBV
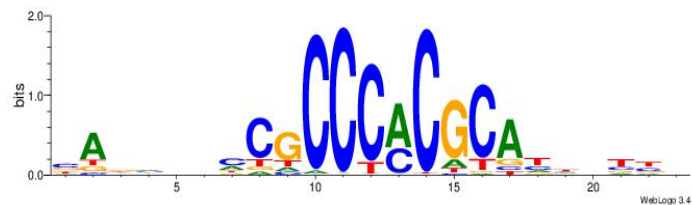
Reverse complement motif

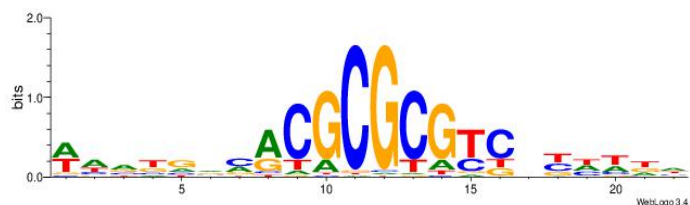Consensus sequence: VVVDHHTGCGYGGGCGDHVHHTB

Motif ID: UP00007

Motif name: Egr1_primary

Species: Mus musculus

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: 0.0342114

Alignment:

```
HCCGCCCCCGCAHB
--CGGCYBCGCG--
```

Original motif

Consensus sequence: HCCGCCCCCGCAHB
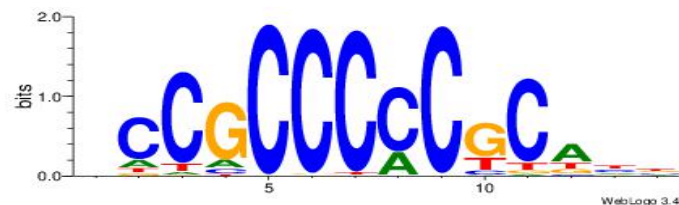
Reverse complement motif

Consensus sequence: VHTGCGGGGGCGGH

Motif ID:	UP00527
Motif name:	Foxn4_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	12
Number of overlap:	10
Similarity score:	0.0356548

Alignment:
```
DBBVDDDRTRGCGTCBBYTHGA
-----------CGGCYBCGCG-
```

Original motif

Consensus sequence: DBBVDDDRTRGCGTCBBYTHGA

Reverse complement motif

Consensus sequence: TCDAMVBGACGCMAKDDDVBBD
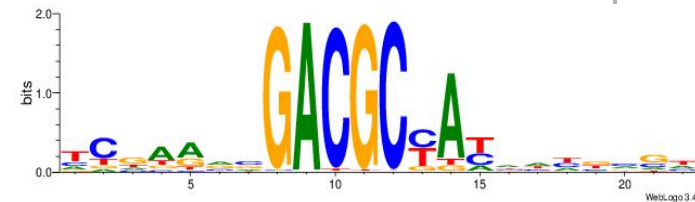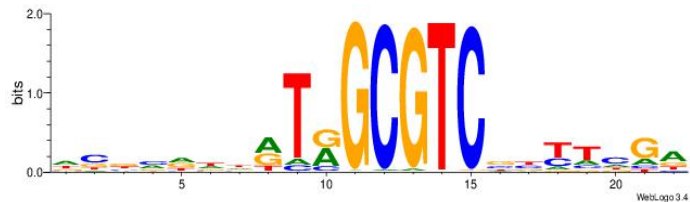
Motif ID: UP00526

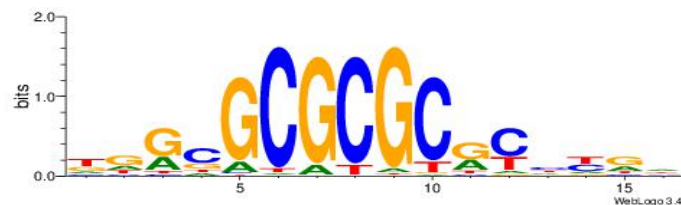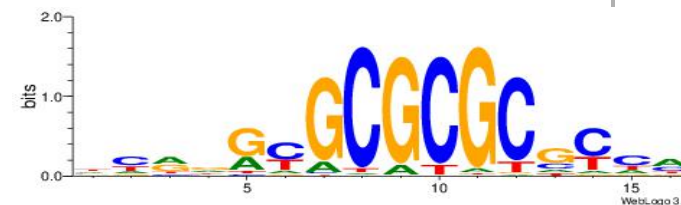Motif name: Foxn1_primary

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Reverse Complement

Direction: Forward

Position number: 11

Number of overlap: 10

Similarity score: 0.041792

Alignment:

```
HDWHMHGACGCGCGTRBVVBHW
----------CGCGBMGCCG--
```

Original motif   Reverse complement motif

Consensus sequence: WHVBVVMACGCGCGTCDYHWDH   Consensus sequence: HDWHMHGACGCGCGTRBVVBHW
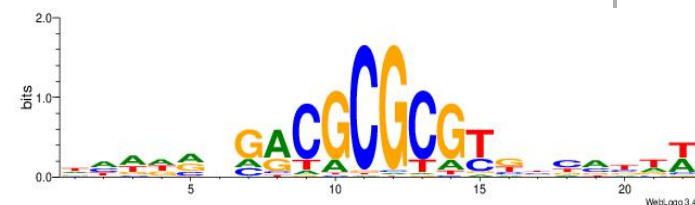
Motif ID: UP00065

Motif name: Zfp161_primary

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Original Motif

Direction: Backward

Position number: 2

Number of overlap: 10

Similarity score: 0.041904

Alignment:
```
DDGCGCGCGCRCHYRD
-----CGCGBMGCCG-
```

Original motif

Consensus sequence: DDGCGCGCGCRCHYRD

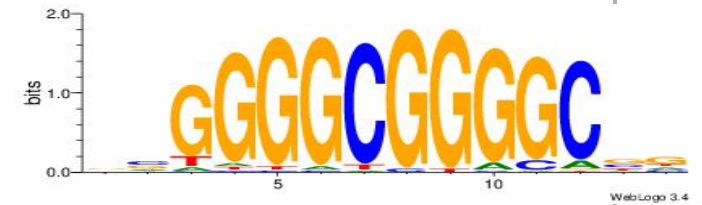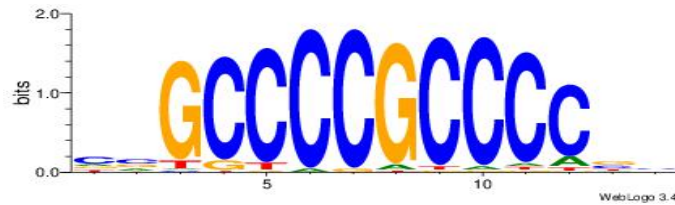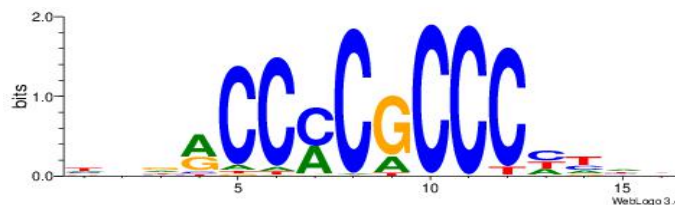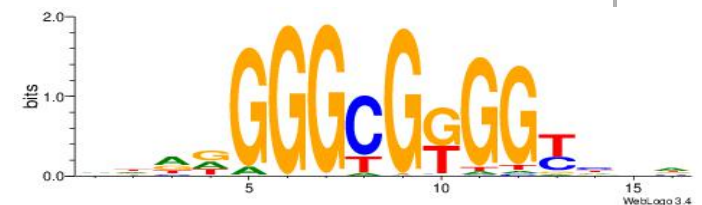Reverse complement motif

Consensus sequence: DMMDGMGCGCGCGCHD

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

Original motif

Consensus sequence: HVGCCCCGCCCCBB

Reverse complement motif

Consensus sequence: BBGGGGCGGGGCVD

Best Matches for Motif ID 12 (Highest to Lowest)

Motif ID:	UP00093
Motif name:	Klf7_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	14
Similarity score:	0

Alignment:
```
HBDRCCMCGCCCHHHD
-HVGCCCCGCCCCBB-
```

Original motif
Consensus sequence: HBDRCCMCGCCCHHHD

Reverse complement motif
Consensus sequence: DHHDGGGCGRGGKHBH

Motif ID: UP00000

Motif name: Smad3_secondary

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Original Motif

Direction: Backward

Position number: 3

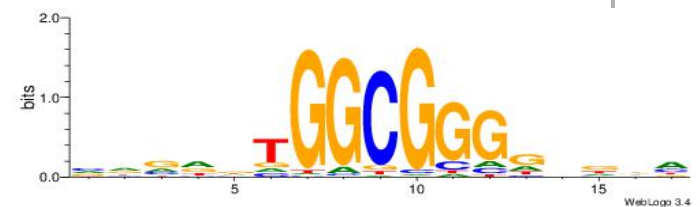Number of overlap: 14

Similarity score: 0.0106621

Alignment:

```
DHHBCCCCGCCAHHBHB
-HVGCCCCGCCCCBB--
```

Original motif   Reverse complement motif

Consensus sequence: DHHBCCCCGCCAHHBHB   Consensus sequence: BHBHDTGGCGGGGBDHD
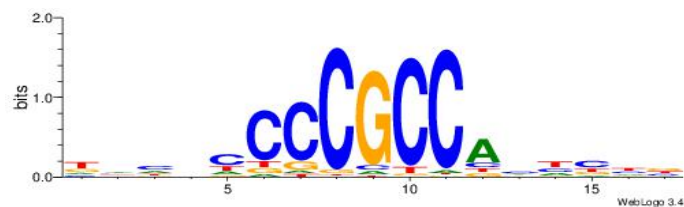
Motif ID: UP00021

Motif name: Zfp281_primary

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Reverse Complement

Direction: Forward

Position number: 1

Number of overlap: 14
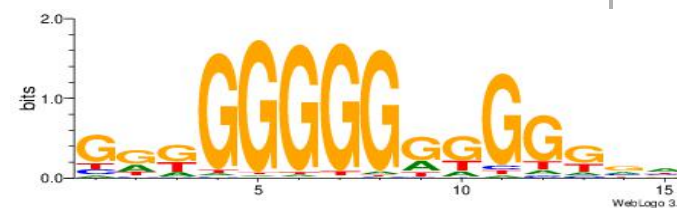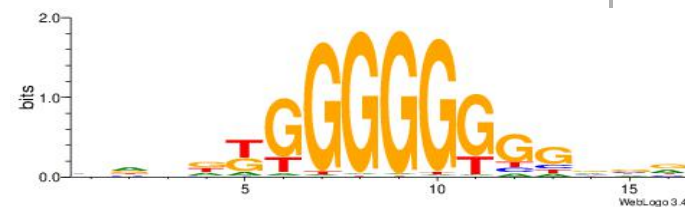
Similarity score: 0.017761

Alignment:
GKRGGGGGGGGGGGBD
BBGGGGCGGGGCVD-

Original motif   Reverse complement motif
Consensus sequence: DBCCCCCCCCCCMYC   Consensus sequence: GKRGGGGGGGGGGGBD
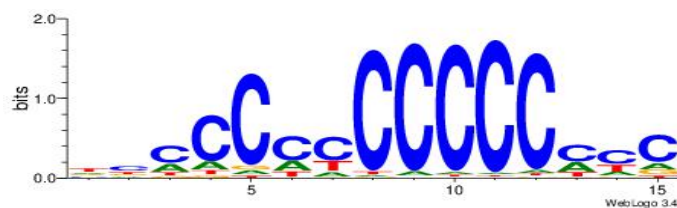
Motif ID: UP00022
Motif name: Zfp740_primary
Species: Mus musculus
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 1
Number of overlap: 14
Similarity score: 0.0181905

Alignment:
HVBCCCCCCCCCMHHHB
HVGCCCCGCCCCBB--

Original motif   Reverse complement motif

Consensus sequence: HVBCCCCCCCCMHHHB
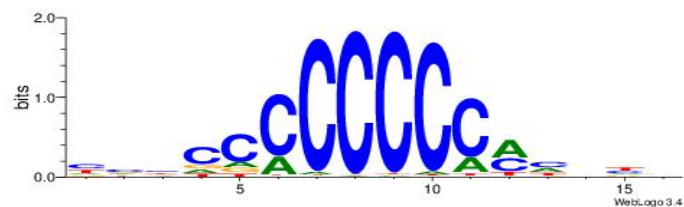
Consensus sequence: BHHDYGGGGGGGGBVD

Motif ID:	UP00033
Motif name:	Zfp410_secondary
Species:	Mus musculus
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:	0.0225788

Alignment:
```
BHHBHCCGCCCCDHHHH
HVGCCCCGCCCCBB---
```

Original motif
Consensus sequence: BHHBHCCGCCCCDHHHH
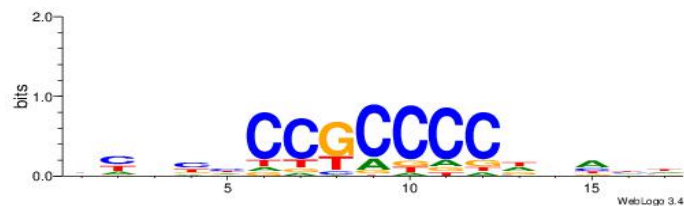
Reverse complement motif
Consensus sequence: HHHHDGGGGCGGDBHDV
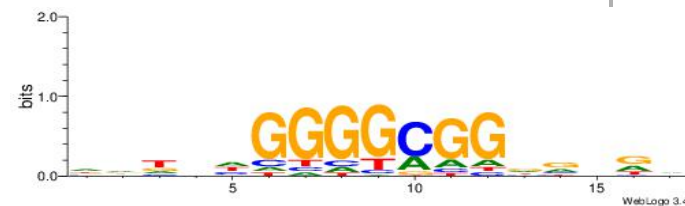
Dataset #: 2   Motif ID: 13   Motif name: tkAAATAATAtw

Original motif

Consensus sequence: HDAAATAATAHW
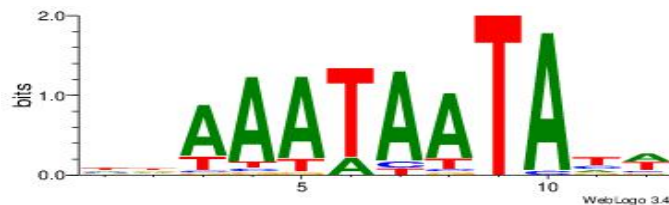
Reverse complement motif

Consensus sequence: WHTATTATTTDH
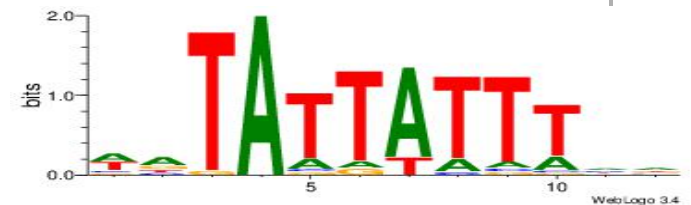
Best Matches for Motif ID 13 (Highest to Lowest)

Motif ID:	UP00121
Motif name:	Hoxd10
Species:	Mus musculus
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:	0.00353196

Alignment:

```
HDDDATTTTATTKVRDB
---WHTATTATTTDH--
```

Original motif

Consensus sequence: VDKVYAATAAAATDDDH

Reverse complement motif

Consensus sequence: HDDDATTTTATTKVRDB
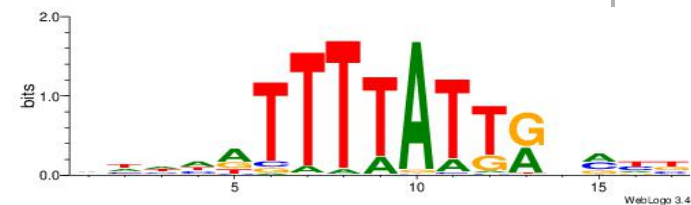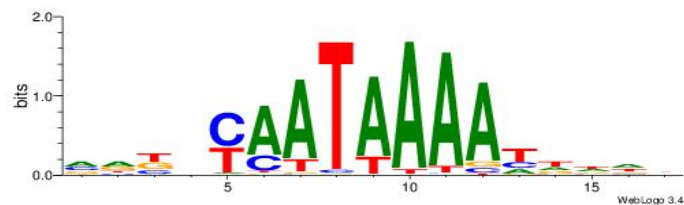
Motif ID:	UP00244
Motif name:	Tlx2
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	12
Similarity score:	0.00646023

Alignment:
```
WWDTTATTAATTHATTV
--WHTATTATTTDH---
```

Original motif
Consensus sequence: BAATHAATTAATAAHWW
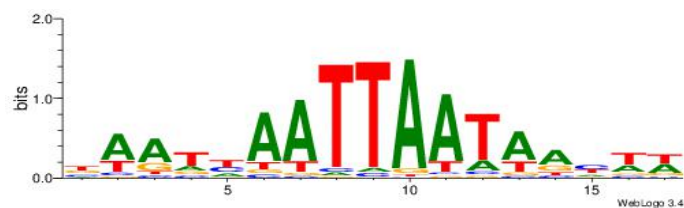
Reverse complement motif
Consensus sequence: WWDTTATTAATTHATTV
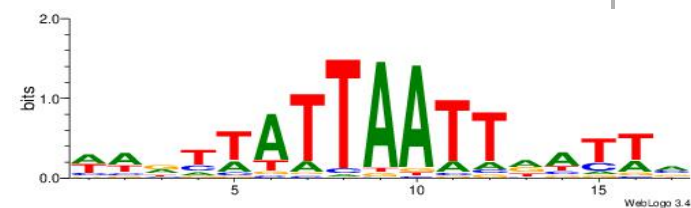
Motif ID:	UP00051

Motif name: Sox8_primary

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Reverse Complement

Direction: Backward

Position number: 4

Number of overlap: 12
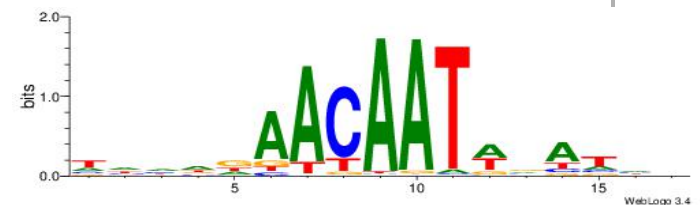
Similarity score: 0.0120674

Alignment:

```
DDDHDAACAATWBATDD
--HDAAATAATAHW---
```

Original motif   Reverse complement motif

Consensus sequence: DDATBWATTGTTHHDDD   Consensus sequence: DDDHDAACAATWBATDD
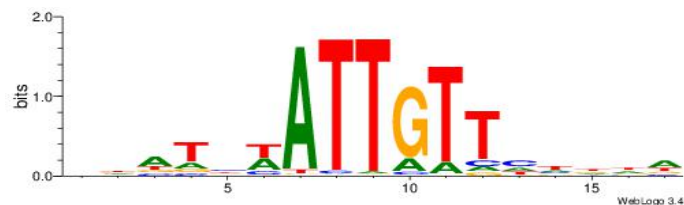
Motif ID: UP00180

Motif name: Hoxd13

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Reverse Complement

Direction: Forward

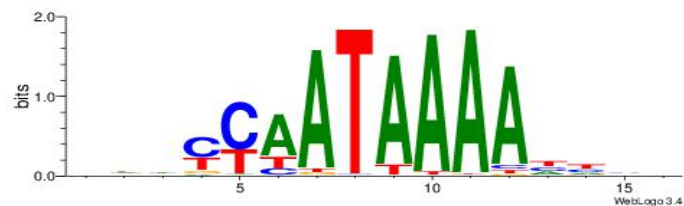Position number: 3

Number of overlap: 12
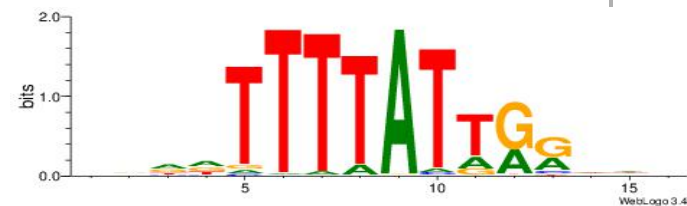
Similarity score: 0.0123772

Alignment:

```
HDHHTTTTATTKKHDD
--WHTATTATTTDH--
```

Original motif

Consensus sequence: HDHYYAATAAAAHHHH

Reverse complement motif

Consensus sequence: HDHHTTTTATTKKHDD

Motif ID:	UP00037
Motif name:	Zfp105_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	12
Similarity score:	0.0129559

Alignment:

```
HHHTTRTTDTTTKDH
--WHTATTATTTDH-
```

Original motif

Consensus sequence: HDYAAAHAAMAADHD

Reverse complement motif

Consensus sequence: HHHTTRTTDTTTKDH
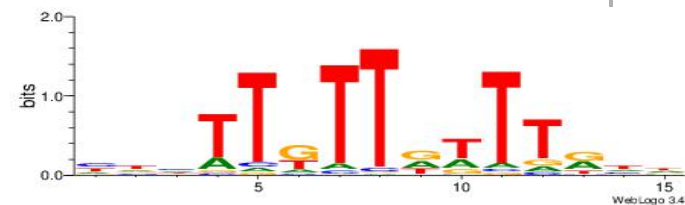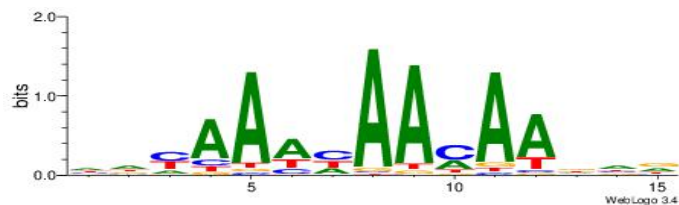
Dataset #: 2   Motif ID: 16   Motif name: kcACCTGCAgc

Original motif
Consensus sequence: BCACCTGCABC

Reverse complement motif
Consensus sequence: GBTGCAGGTGB

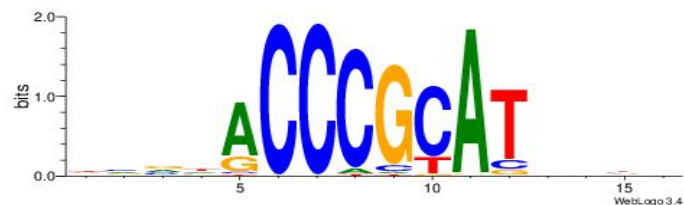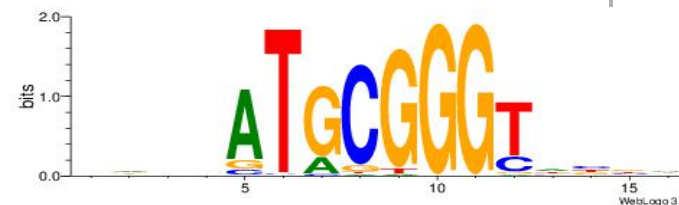## Best Matches for Motif ID 16 (Highest to Lowest)

Motif ID:	UP00070
Motif name:	Gcm1_primary
Species:	Mus musculus
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

Alignment:

```
DHDVATGCGGGTHVVH
---GBTGCAGGTGB--
```

Original motif

Consensus sequence: HVVHACCCGCATVDHD

Reverse complement motif

Consensus sequence: DHDVATGCGGGTHVVH

Motif ID:	UP00031
Motif name:	Zbtb3_primary
Species:	Mus musculus
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:	0.000503863

Alignment:
```
BBBAVTGCAGTGBBVDD
---GBTGCAGGTGB---
```

Original motif

Consensus sequence: DDBBBCACTGCABTBBB

Reverse complement motif

Consensus sequence: BBBAVTGCAGTGBBVDD
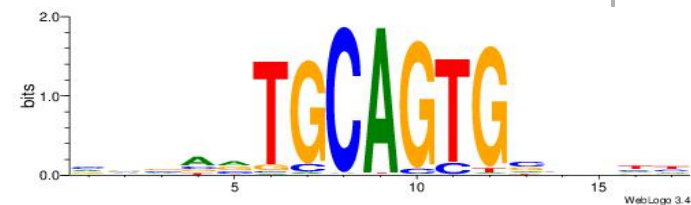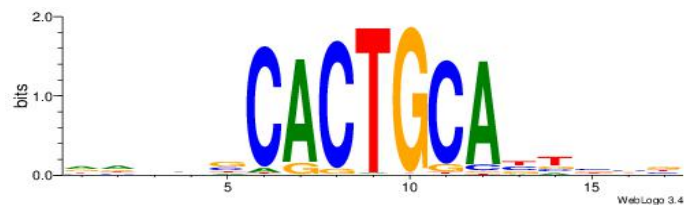
Motif ID: UP00046

Motif name: Tcfe2a_primary

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Reverse Complement

Direction: Forward

Position number: 6

Number of overlap: 11
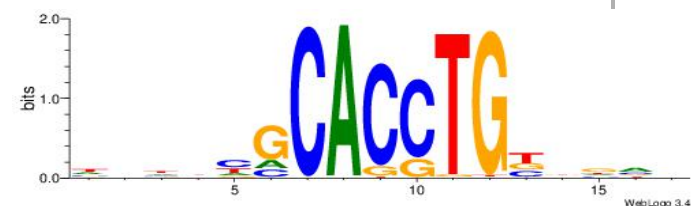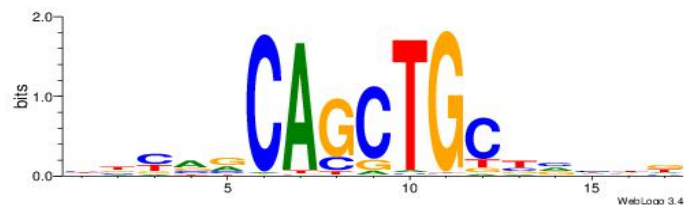
Similarity score: 0.000557448

Alignment:

```
DHDBHGCACCTGBDDVB
-----BCACCTGCABC-
```

Original motif   Reverse complement motif

Consensus sequence: VBHHVCAGGTGCDVDHD   Consensus sequence: DHDBHGCACCTGBDDVB
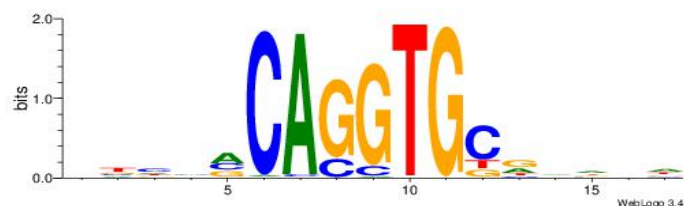
Motif ID: UP00099

Motif name: Ascl2_primary

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Original Motif

Direction: Backward

Position number: 3

Number of overlap: 11
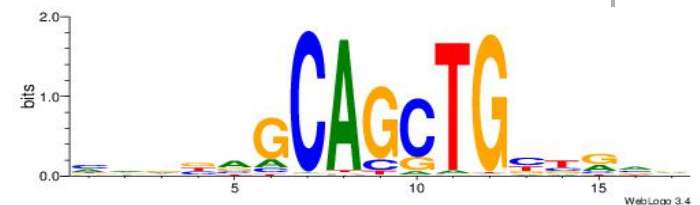
Similarity score: 0.00842747

Alignment:

BBYVVCAGCTGCBVHHD

----BCACCTGCABC--

Original motif   Reverse complement motif

Consensus sequence: BBYVVCAGCTGCBVHHD   Consensus sequence: HHDVVGCAGCTGVBKVB

Motif ID: UP00420

Motif name: Elk3

Species: Mus musculus

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: 0.0111732

Alignment:
```
DVBBACCGGAAGYDVVV
--BCACCTGCABC----
```

Original motif
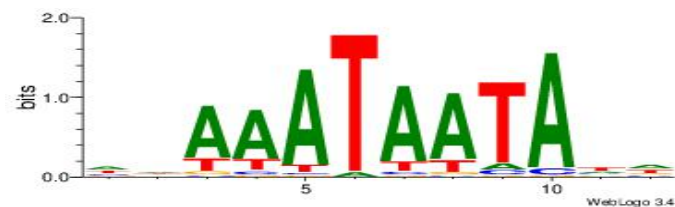Consensus sequence: DVBBACCGGAAGYDVVV
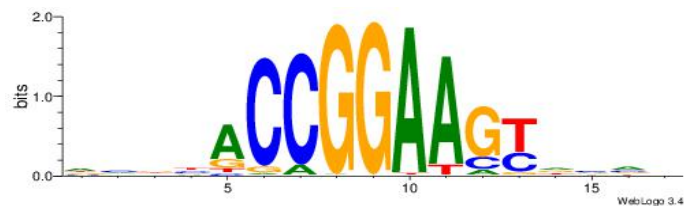
Reverse complement motif
Consensus sequence: VBVDMCTTCCGGTVBVD
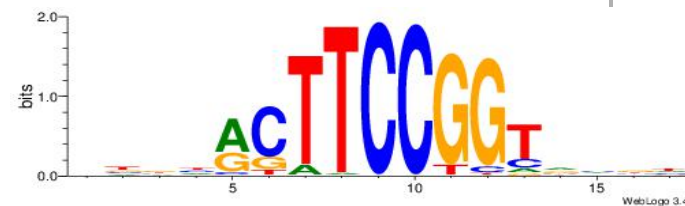
Dataset #: 2   Motif ID: 17   Motif name: wwAAATAATAtw
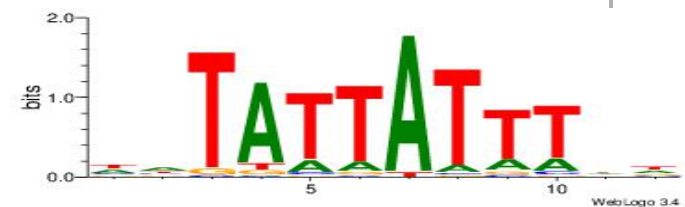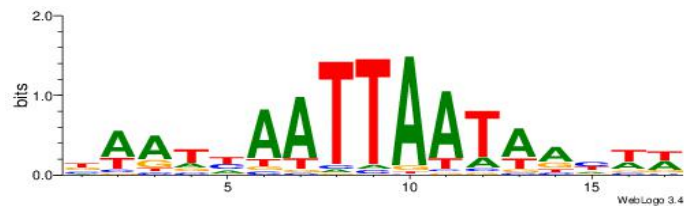
Original motif
Consensus sequence: HDAAATAATADD

Reverse complement motif
Consensus sequence: DDTATTATTTDH

Best Matches for Motif ID 17 (Highest to Lowest)

Motif ID:	UP00244
Motif name:	Tlx2
Species:	Mus musculus
Matching format of first motif:	Reverse Complement

Matching format of second motif: Reverse Complement

Direction: Backward

Position number: 4

Number of overlap: 12

Similarity score: 0.00576686

Alignment:

```
WWDTTATTAATTHATTV
--DDTATTATTTDH---
```

Original motif

Consensus sequence: BAATHAATTAATAAHWW

Reverse complement motif
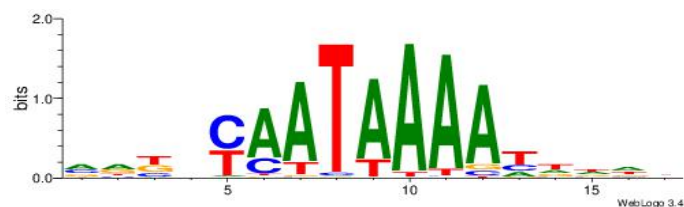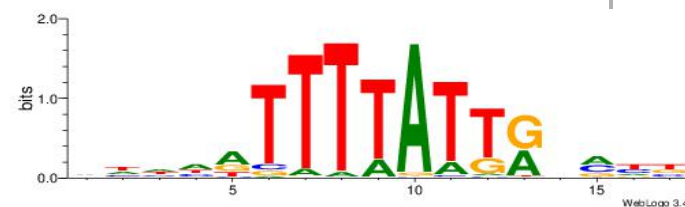
Consensus sequence: WWDTTATTAATTHATTV
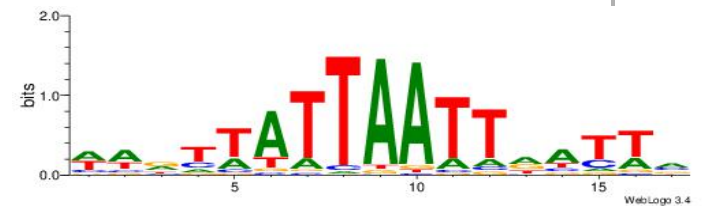
Motif ID: UP00121

Motif name: Hoxd10

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Reverse Complement

Direction: Forward

Position number: 4

Number of overlap: 12
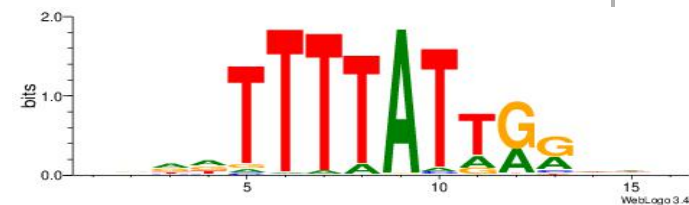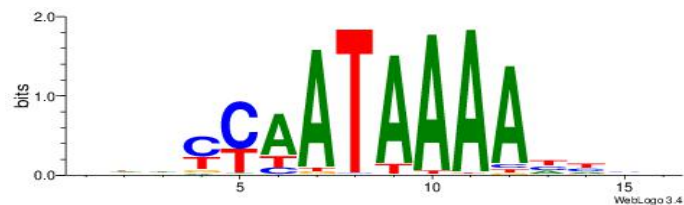
Similarity score: 0.00673636

Alignment:

```
HDDDATTTTATTKVRDB
---DDTATTATTTDH--
```

Original motif

Consensus sequence: VDKVYAATAAAATDDDH

Reverse complement motif

Consensus sequence: HDDDATTTTATTKVRDB

Motif ID:	UP00180
Motif name:	Hoxd13
Species:	Mus musculus
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:	0.00685179

Alignment:
```
HDHHTTTTATTKKHDD
--DDTATTATTTDH--
```

Original motif

Consensus sequence: HDHYYAATAAAAHHHH

Reverse complement motif

Consensus sequence: HDHHTTTTATTKKHDD

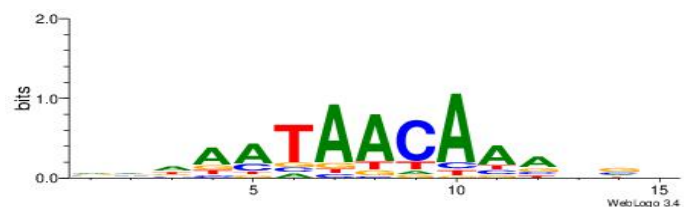Motif ID: UP00073
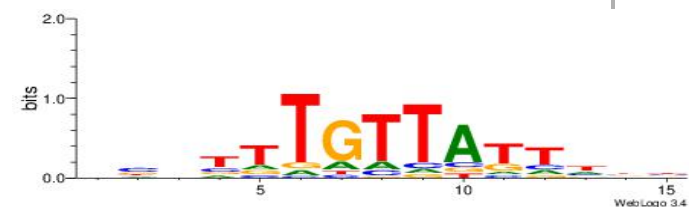Motif name: Foxa2_secondary
Species: Mus musculus
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 1
Number of overlap: 12
Similarity score: 0.0108327

Alignment:
```
VVDAATAACAAAVVB
HDAAATAATADD---
```

Original motif   Reverse complement motif
Consensus sequence: VVDAATAACAAAVVB   Consensus sequence: BVVTTTGTTATTDBB

Motif ID: UP00134
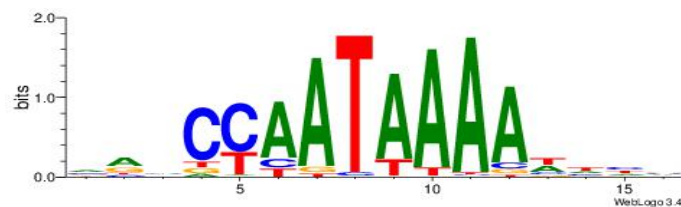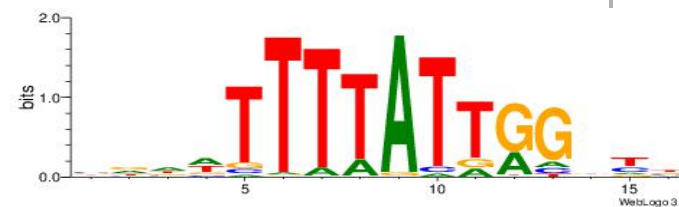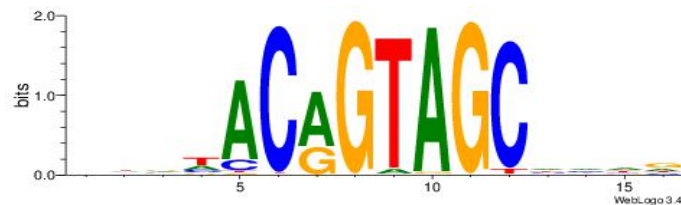Motif name: Hoxb13

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Reverse Complement

Direction: Forward

Position number: 3

Number of overlap: 12

Similarity score: 0.0121723

Alignment:

```
VDHWTTTTATTGGDKB
--DDTATTATTTDH--
```

Original motif

Consensus sequence: VRHCCAATAAAAWHHV

Reverse complement motif

Consensus sequence: VDHWTTTTATTGGDKB

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

Original motif

Consensus sequence: HVTACWGTABD

Reverse complement motif

Consensus sequence: DBTACWGTAVH

Best Matches for Motif ID 19 (Highest to Lowest)

Motif ID:	UP00052
Motif name:	Osr2_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	5
Number of overlap:	11
Similarity score:	0

Alignment:

```
HHHHGCTACKGTHVHH
----DBTACWGTAVH-
```

Original motif

Consensus sequence: HHVHACRGTAGCHHHD

Reverse complement motif

Consensus sequence: HHHHGCTACKGTHVHH
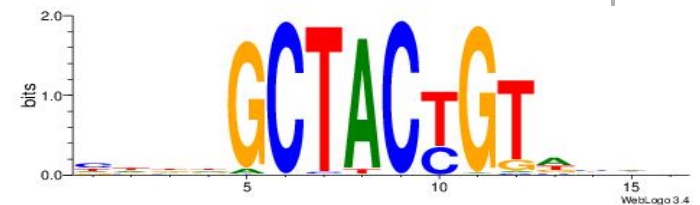
Motif ID:	UP00027
Motif name:	Osr1_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement

Matching format of second motif: Reverse Complement

Direction: Backward

Position number: 2

Number of overlap: 11

Similarity score: 0.00480574

Alignment:
```
DHBHGCTACKGTHDHH
----DBTACWGTAVH-
```
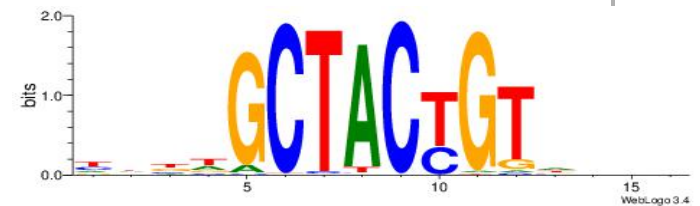
Original motif

Consensus sequence: HHDHACRGTAGCHVHD
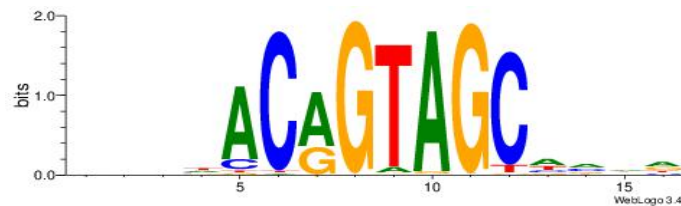
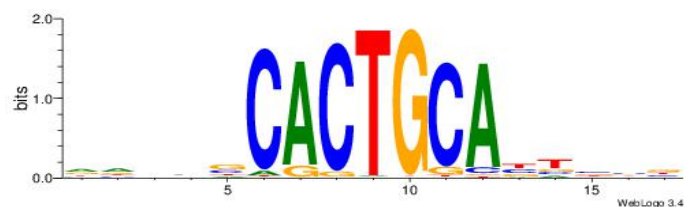Reverse complement motif

Consensus sequence: DHBHGCTACKGTHDHH

Motif ID: UP00031

Motif name: Zbtb3_primary

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Reverse Complement

Direction: Forward

Position number: 4

Number of overlap: 11

Similarity score: 0.0165381
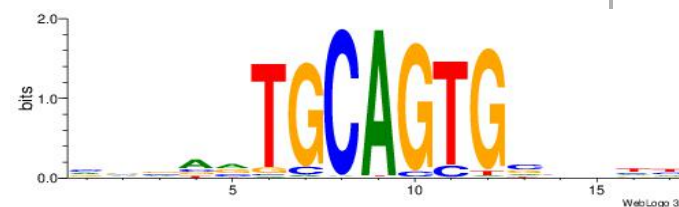
Alignment:

```
BBBAVTGCAGTGBBVDD
---HVTACWGTABD---
```

Original motif

Consensus sequence: DDBBBCACTGCABTBBB

Reverse complement motif

Consensus sequence: BBBAVTGCAGTGBBVDD

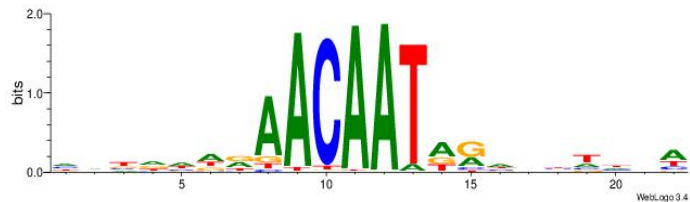| Motif ID:	[UP00034](UP00034)
Motif name:	Sox7_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	7
Number of overlap:	11
Similarity score:	0.0248017

Alignment:
```
HHBDHDDAACAATDRHHHHHBW
-----DBTACWGTAVH------
```

Original motif

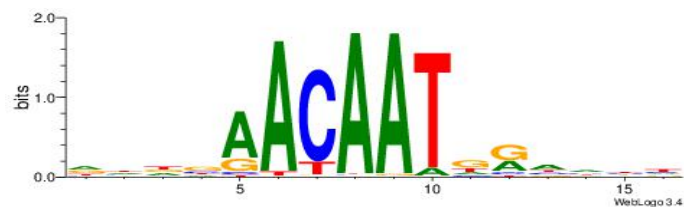Consensus sequence: HHBDHDDAACAATDRHHHHHBW

Reverse complement motif
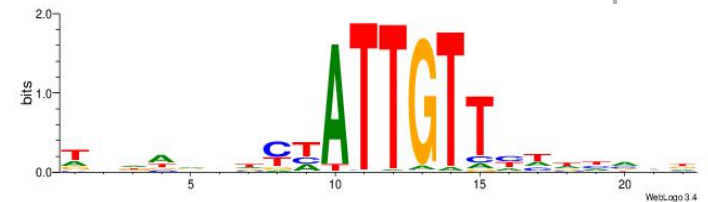
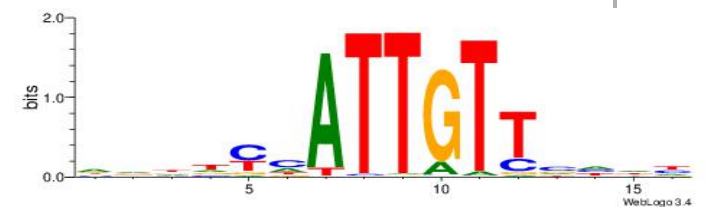Consensus sequence: WBHHHHHMDATTGTTHDHDVHH

Motif ID:	UP00023
Motif name:	Sox30_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	11
Similarity score:	0.0294174

Alignment:
```
HHHHMHATTGTTBDHD
---HVTACWGTABD--
```

Original motif
Consensus sequence: DHDBAACAATDRHHHH

Reverse complement motif
Consensus sequence: HHHHMHATTGTTBDHD

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

Original motif

Consensus sequence: DHACATTCTGH

Reverse complement motif

Consensus sequence: HCAGAATGTHD

Best Matches for Motif ID 20 (Highest to Lowest)

Motif ID:	UP00038
Motif name:	Spdef_secondary
Species:	Mus musculus
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:	0.00581553

Alignment:
```
VDWYTAGGATGTHVDH
---HCAGAATGTHD--
```

Original motif

Consensus sequence: DDBHACATCCTAKWDV

Reverse complement motif

Consensus sequence: VDWYTAGGATGTHVDH

Motif ID: UP00528

Motif name: Foxm1_secondary

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Reverse Complement

Direction: Forward

Position number: 8

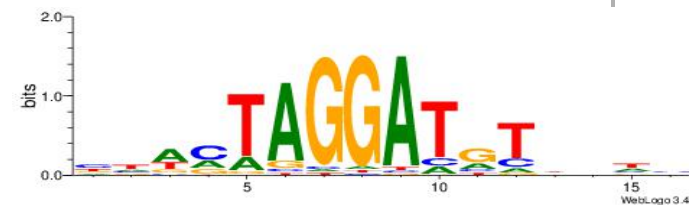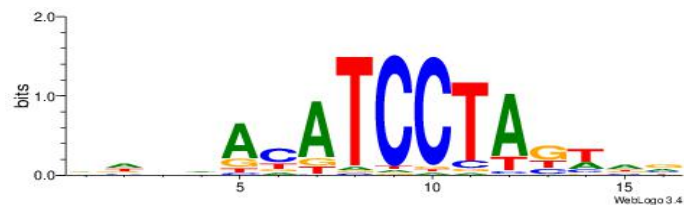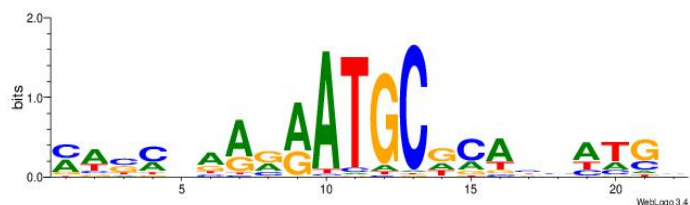Number of overlap: 11

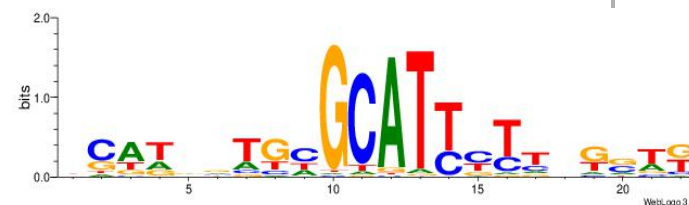Similarity score: 0.00582895

Alignment:

DCATDBTGHGCATKMTTBRSWR

-------DHACATTCTGH----

Original motif   Reverse complement motif

Consensus sequence: MWSMBAARRATGCDCABHATGD   Consensus sequence: DCATDBTGHGCATKMTTBRSWR

Motif ID: UP00023

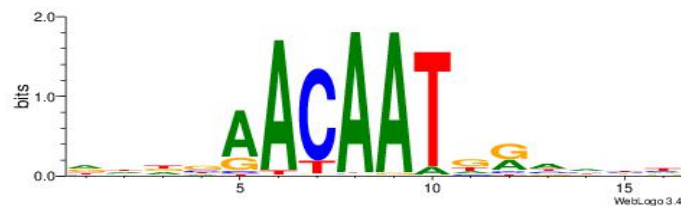Motif name: Sox30_primary

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Reverse Complement

Direction: Backward

Position number: 4

Number of overlap: 11
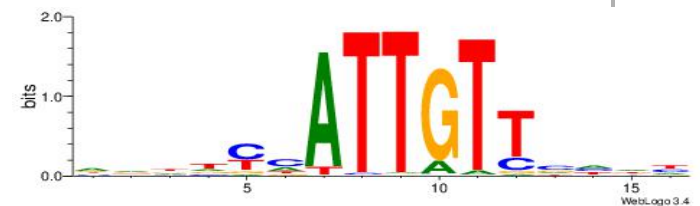
Similarity score: 0.00613057

Alignment:

```
HHHHMHATTGTTBDHD
--DHACATTCTGH---
```

Original motif

Consensus sequence: DHDBAACAATDRHHHH

Reverse complement motif

Consensus sequence: HHHHMHATTGTTBDHD

Motif ID: UP00034

Motif name: Sox7_primary

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Reverse Complement

Direction: Forward

Position number: 6
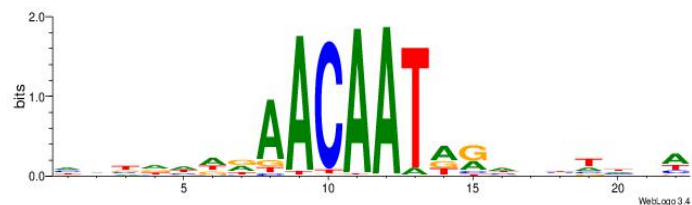
Number of overlap: 11
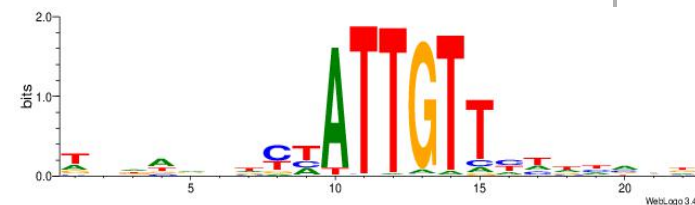
Similarity score: 0.0119275

Alignment:
```
WBHHHHHMDATTGTTHDHDVHH
-----DHACATTCTGH------
```

Original motif   Reverse complement motif
Consensus sequence: HHBDHDDAACAATDRHHHHHBW   Consensus sequence: WBHHHHHMDATTGTTHDHDVHH

Motif ID:	UP00030
Motif name:	Sox11_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	11
Similarity score:	0.0122803

Alignment:
```
HHBTMCTTTGTTMDDVH
--DHACATTCTGH----
```

Original motif   Reverse complement motif
Consensus sequence: HBDDRAACAAAGRABHH   Consensus sequence: HHBTMCTTTGTTMDDVH
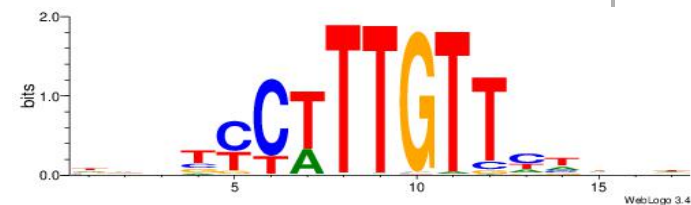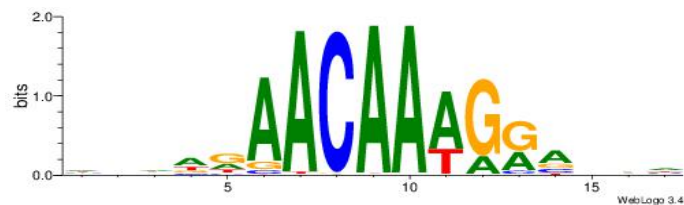
Dataset #: 2   Motif ID: 21   Motif name: wbgTAAATAww
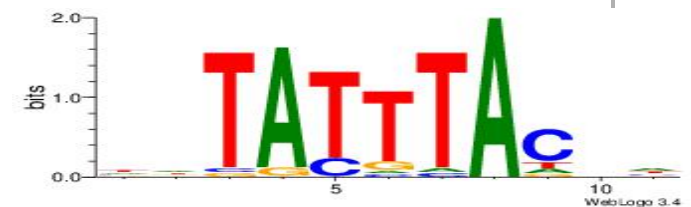
Original motif

Consensus sequence: DBGTAAATAHD

Reverse complement motif

Consensus sequence: DHTATTTACBD

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

Motif ID:	UP00242
Motif name:	Hoxc8
Species:	Mus musculus
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

Alignment:
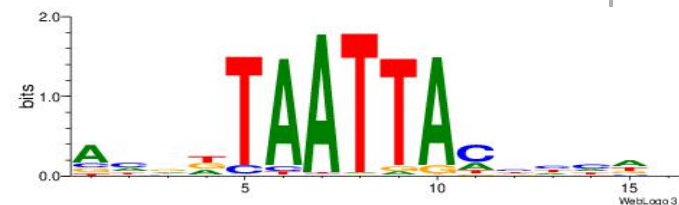
```
AHDHTAATTACHHHHV
--DHTATTTACBD---
```

Original motif

Consensus sequence: BHDDDGTAATTAHHDT
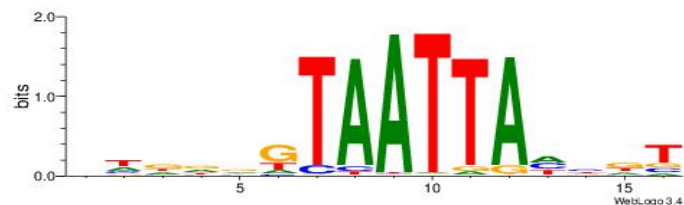
Reverse complement motif

Consensus sequence: AHDHTAATTACHHHHV

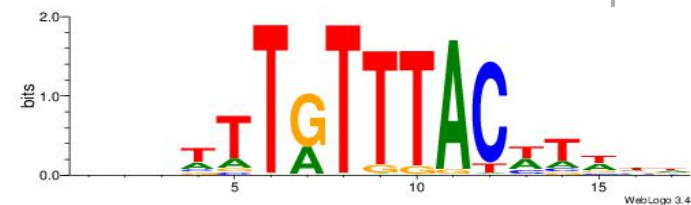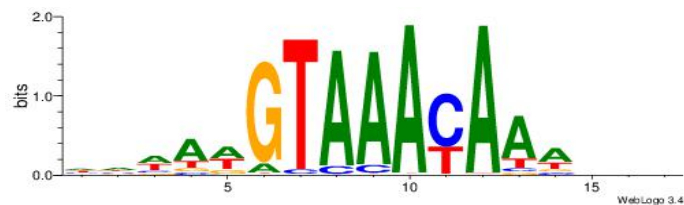|	
Motif ID:	UP00073
Motif name:	Foxa2_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	4
Number of overlap:	11
Similarity score:	0.00453517

Alignment:
```
HHWAWGTAAAYAAAVDB
---DBGTAAATAHD---
```

Original motif

Consensus sequence: HHWAWGTAAAYAAAVDB

Reverse complement motif
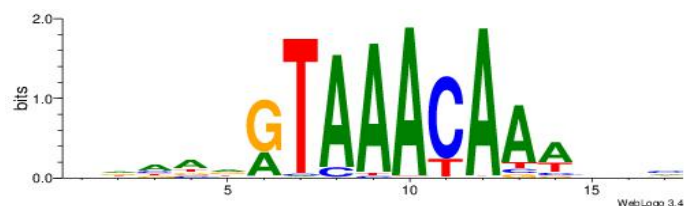
Consensus sequence: BDVTTTKTTTACWTWHH

Motif ID:	UP00039
Motif name:	Foxj3_primary
Species:	Mus musculus
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:	0.00490457

Alignment:

```
HDHADGTAAACAAAVVH
---DBGTAAATAHD---
```
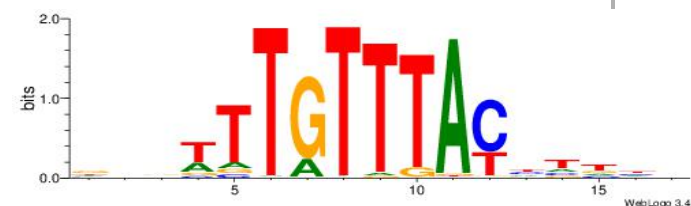
Original motif
Consensus sequence: HDHADGTAAACAAAVVH

Reverse complement motif
Consensus sequence: DVVTTTGTTTACDTHDH

Motif ID: UP00041
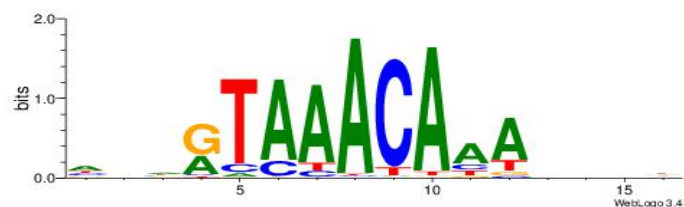
Motif name: Foxj1_primary

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Original Motif

Direction: Backward

Position number: 5

Number of overlap: 11

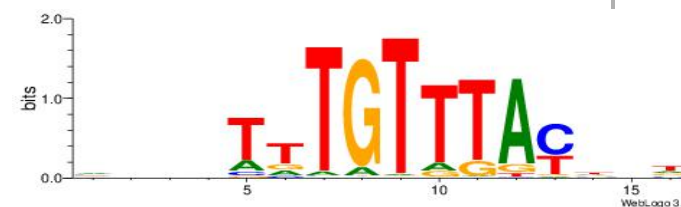Similarity score: 0.00656547

Alignment:
```
HDHRTAAACAAAHDDD
-DBGTAAATAHD----
```

Original motif

Consensus sequence: HDHRTAAACAAAHDDD

Reverse complement motif

Consensus sequence: DDDHTTTGTTTAMHDH

Motif ID: UP00182

Motif name: Hoxa6

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Reverse Complement

Direction: Forward

Position number: 4

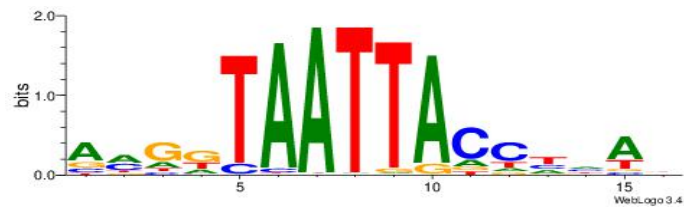Number of overlap: 11

Similarity score: 0.0086354

Alignment:
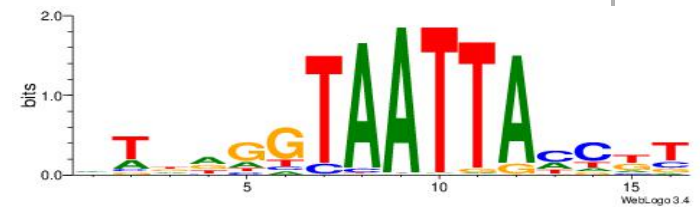```
DTHHGGTAATTAYCYT
---DBGTAAATAHD--
```

Original motif
Consensus sequence: AMGKTAATTACCHHAD



Reverse complement motif
Consensus sequence: DTHHGGTAATTAYCYT



Results created by MOTIFSIM on 06-18-2018 21:47:01
Runtime: 633.592 seconds

MOTIFSIM is written by Ngoc Tam L. Tran
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