MOTIFSIM - MOTIF SIMilarity Detection Tool

Version 2.1

INPUT

Input Parameters

Number of files:	5
Number of top significant motifs:	10
Number of best matches:	10
Similarity cutoff >=	0.75
Matching motif database:	UniProbe Mus Musculus
Phylogenetic 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

Best Matches in Database 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

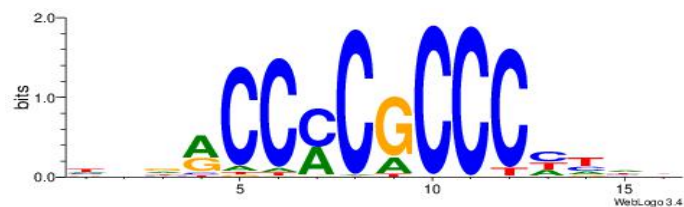**Best Matches for Motif ID 1 (Highest to Lowest)**

Motif ID:	UP00093
Motif name:	Klf7_primary
Species:	Mus musculus
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

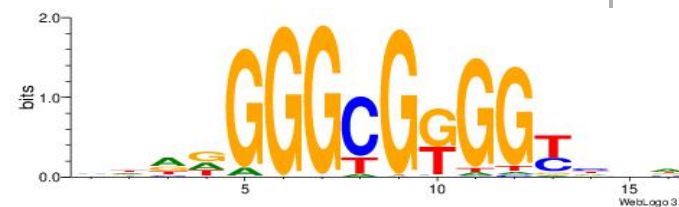Alignment:

```
HBDRCCMCGCCCHHHD
---GCCCCGCC-----
```

Original motif

Consensus sequence: HBDRCCMCGCCCHHHD

Reverse complement motif

Consensus sequence: DHHDGGGCGRGGKHBH

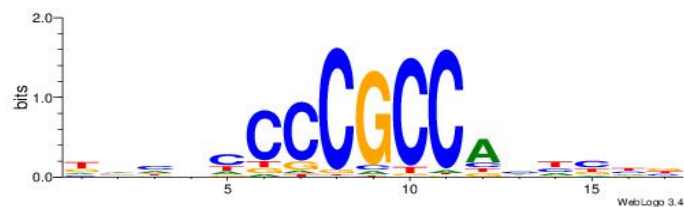|	
Motif ID:	UP00000
Motif name:	Smad3_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	7
Number of overlap:	8
Similarity score:	0.00617043

Alignment:

```
BHBHDTGGCGGGGBDHD
------GGCGGGGC---
```
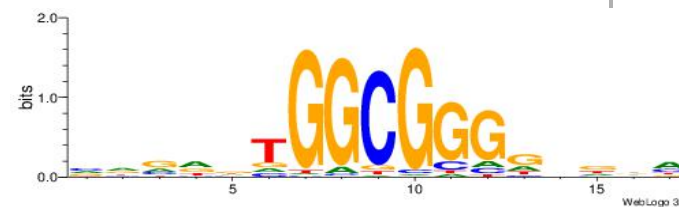
Original motif

Consensus sequence: DHHBCCCCGCCAHHBHB

Reverse complement motif

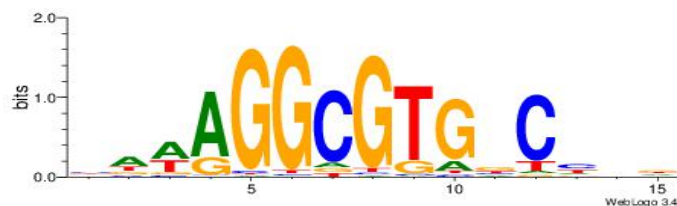Consensus sequence: BHBHDTGGCGGGGBDHD

Motif ID: [UP00002](UP00002)

Motif name: Sp4_secondary

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Original Motif

Direction: Forward

Position number: 5

Number of overlap: 8

Similarity score: 0.0145996
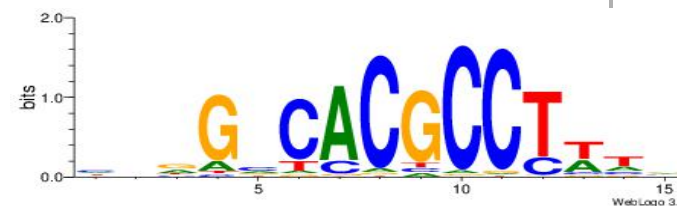
Alignment:

```
BDWAGGCGTGBCHHD
----GGCGGGGC---
```

Original motif

Consensus sequence: BDWAGGCGTGBCHHD

Reverse complement motif

Consensus sequence: HHDGBCACGCCTWDB

Motif ID: [UP00002](UP00002)

Motif name: Sp4_primary

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Original Motif
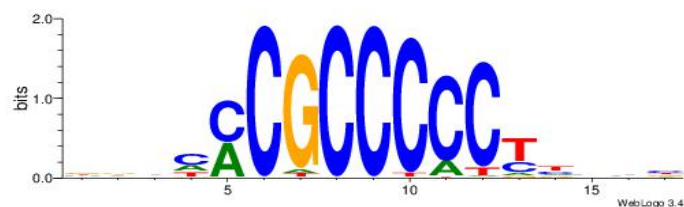
Direction: Forward

Position number: 2

Number of overlap: 8

Similarity score: 0.0233506

Alignment:

```
BDHHMCGCCCCCTHVBB
-GCCCCGCC--------
```

Original motif

Consensus sequence: BDHHMCGCCCCCTHVBB

Reverse complement motif

Consensus sequence: BVVHAGGGGGCGRDHHB

Motif ID: UP00024

Motif name: Glis2_primary

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Original Motif

Direction: Forward

Position number: 5

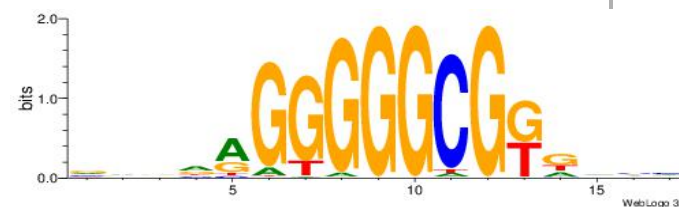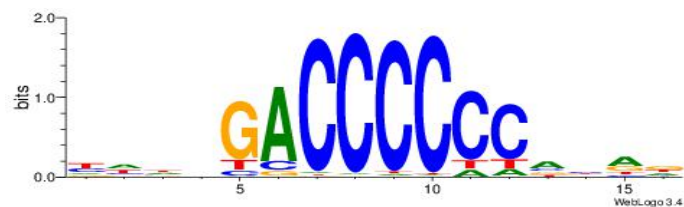Number of overlap: 8
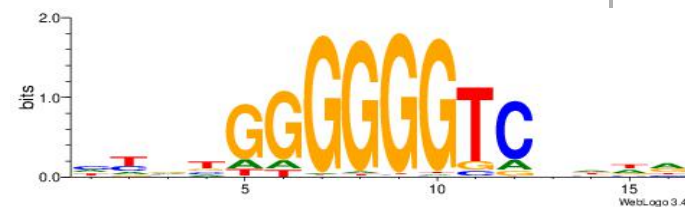
Similarity score: 0.0291232

Alignment:

```
HHHVGACCCCCCVBRD
----GCCCCGCC----
```

Original motif

Consensus sequence: HHHVGACCCCCVBRD

Reverse complement motif

Consensus sequence: HKBBGGGGGGTCVHHH

Motif ID:	UP00022
Motif name:	Zfp740_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:	8
Similarity score:	0.0338469

Alignment:

```
BHHDYGGGGGGGGBVD
-----GGCGGGGC---
```

Original motif

Consensus sequence: HVBCCCCCCCCMHHHB

Reverse complement motif

Consensus sequence: BHHDYGGGGGGGGBVD

Motif ID: UP00007

Motif name: Egr1_primary

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Reverse Complement

Direction: Backward

Position number: 4

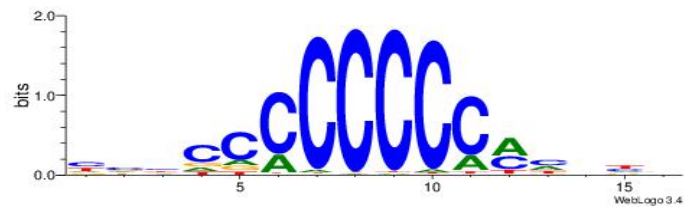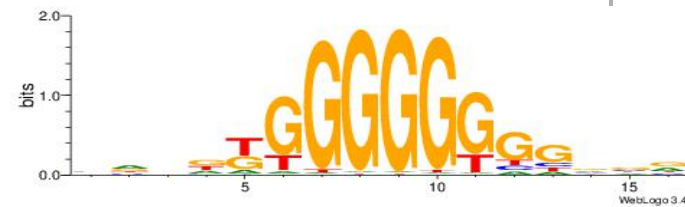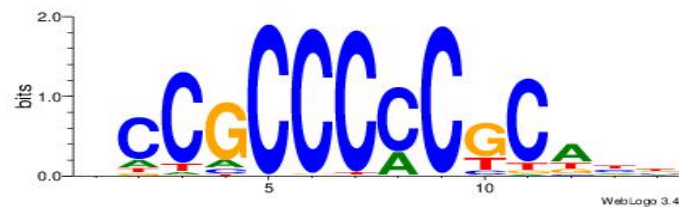Number of overlap: 8

Similarity score: 0.0361147

Alignment:

```
VHTGCGGGGGCGGH
---GGCGGGGC---
```
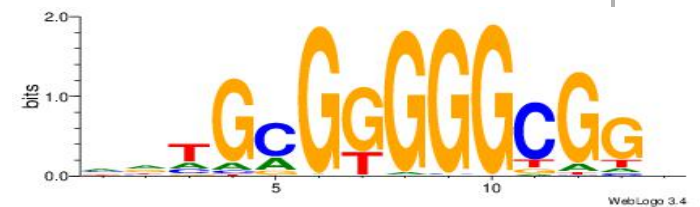
Original motif

Consensus sequence: HCCGCCCCCGCAHB

Reverse complement motif

Consensus sequence: VHTGCGGGGGCGGH

Motif ID: UP00539

Motif name: Gli2_v016060_primary

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Original Motif
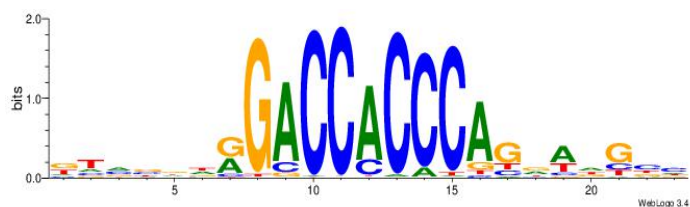
Direction: Forward

Position number: 8

Number of overlap: 8

Similarity score: 0.0374146

Alignment:

```
DTVBDDRGACCACCCAGDWDGBH
-------GCCCCGCC---------
```
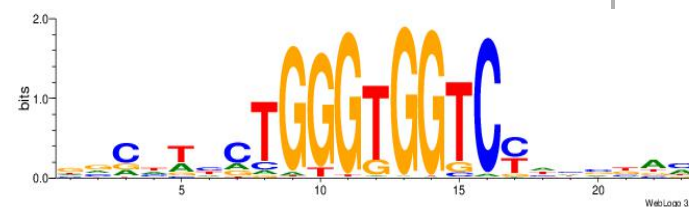
Original motif

Consensus sequence: DTVBDDRGACCACCCAGDWDGBH

Reverse complement motif

Consensus sequence: DBCDWHCTGGGTGGTCMDHBBAH

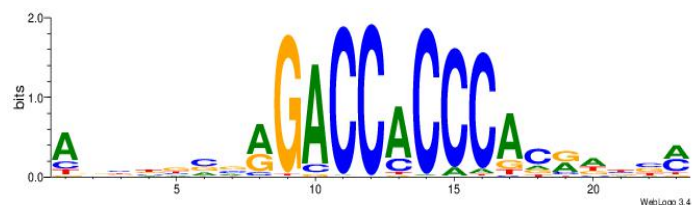Motif ID: UP00540

Motif name: Gli3_v015681_primary

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Original Motif

Direction: Forward

Position number: 9

Number of overlap: 8

Similarity score: 0.0376381
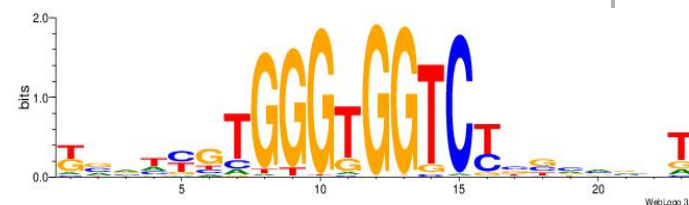
Alignment:

```
ABBBBVVRGACCACCCACRDBBM
--------GCCCCGCC-------
```

Original motif
Consensus sequence: ABBBBVVRGACCACCCACRDBBM

Reverse complement motif
Consensus sequence: YBVDMGTGGGTGGTCKVVBVBBT

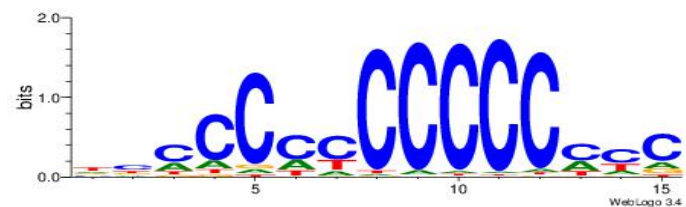| Motif ID:	UP00021
Motif name:	Zfp281_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	8
Similarity score:	0.0392043

Alignment:
```
GKRGGGGGGGGGGBD
---GGCGGGGC----
```

Original motif
Consensus sequence: DBCCCCCCCCCCMYC

Reverse complement motif
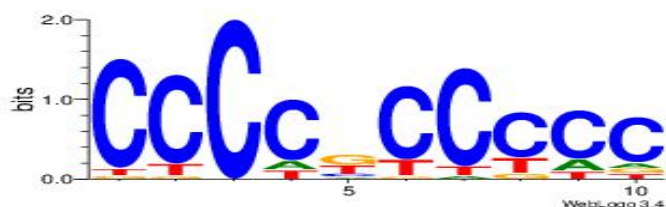Consensus sequence: GKRGGGGGGGGGGBD

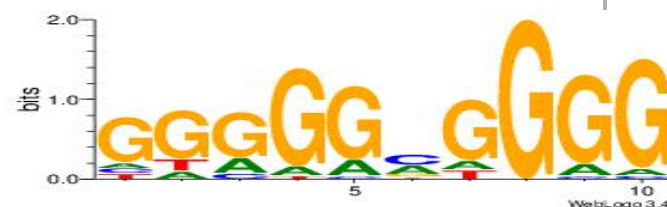**Dataset #: 3   Motif ID: 24   Motif name: SP1**

Original motif
Consensus sequence: CCCCKCCCCC

Reverse complement motif
Consensus sequence: GGGGGYGGGG

Best Matches for Motif ID 24 (Highest to Lowest)

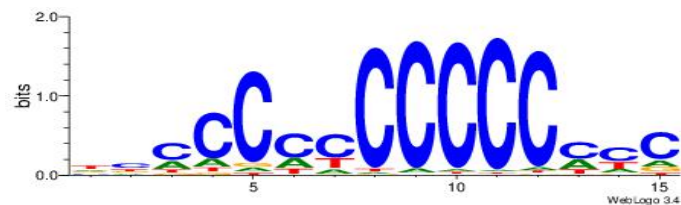|	
Motif ID:	UP00021
Motif name:	Zfp281_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	4
Number of overlap:	10
Similarity score:	0.0231018

Alignment:
```
DBCCCCCCCCCCMYC
--CCCCKCCCCC---
```

Original motif
Consensus sequence: DBCCCCCCCCCCMYC

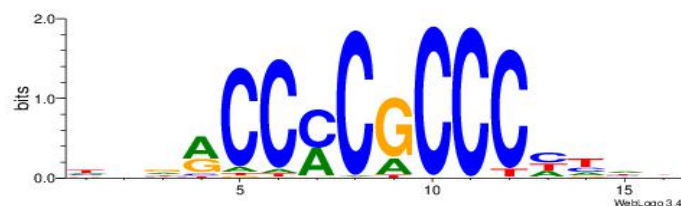Reverse complement motif
Consensus sequence: GKRGGGGGGGGGGBD

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:	Backward
Position number:	3
Number of overlap:	10
Similarity score:	0.0303207

Alignment:
```
HBDRCCMCGCCCHHHD
----CCCCKCCCCC--
```
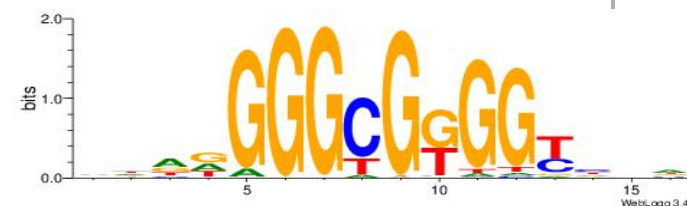
Original motif
Consensus sequence: HBDRCCMCGCCCHHHD

Reverse complement motif
Consensus sequence: DHHDGGGCGRGGKHBH

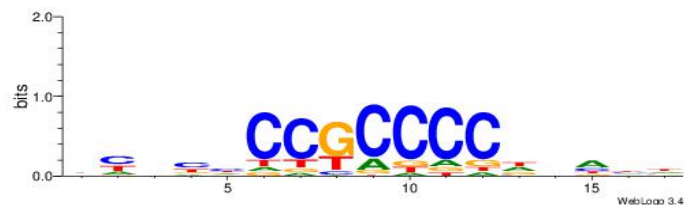Motif ID: UP00033

Motif name: Zfp410_secondary

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: 10

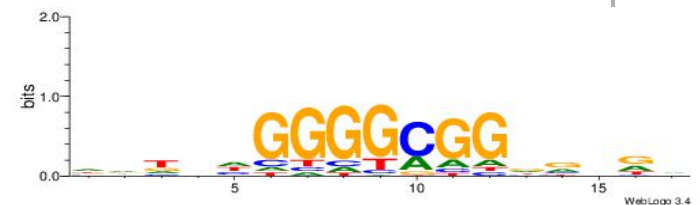Similarity score: 0.0323007

Alignment:
```
HHHHDGGGGCGGDBHDV
----GGGGGYGGGG---
```

Original motif   Reverse complement motif

Consensus sequence: BHHBHCCGCCCCDHHHH   Consensus sequence: HHHHDGGGGCGGDBHDV

Motif ID: UP00099

Motif name: Ascl2_secondary

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: 10

Similarity score: 0.0340973

Alignment:

```
HVDVGGGHGGGGDBHB
--GGGGGYGGGG----
```

Original motif   Reverse complement motif
Consensus sequence: BHVDCCCCDCCCBDBH   Consensus sequence: HVDVGGGHGGGGDBHB

Motif ID: UP00043

Motif name: Bcl6b_secondary

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Reverse Complement

Direction: Forward

Position number: 5
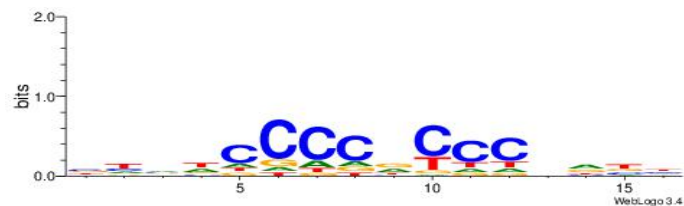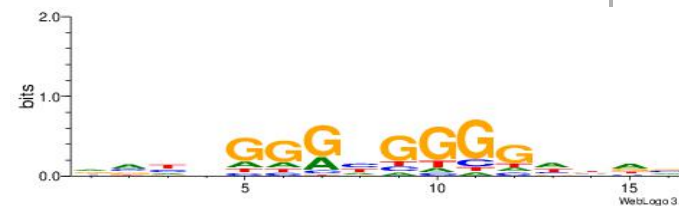
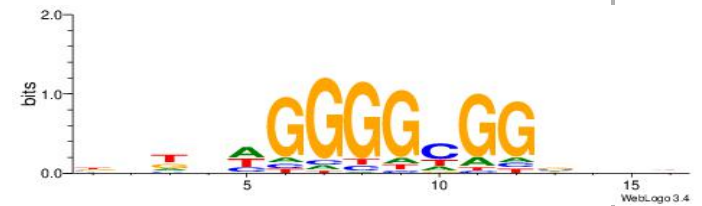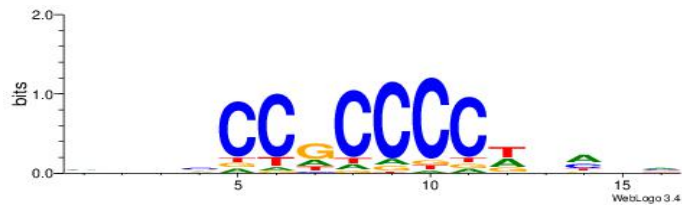Number of overlap: 10

Similarity score: 0.0351051

Alignment:

```
BHHHWGGGGCGGBBVH
----GGGGGYGGGG--
```

Original motif   Reverse complement motif
Consensus sequence: HBBBCCGCCCCWHHHV   Consensus sequence: BHHHWGGGGCGGBBVH

Motif ID: [UP00539](UP00539)
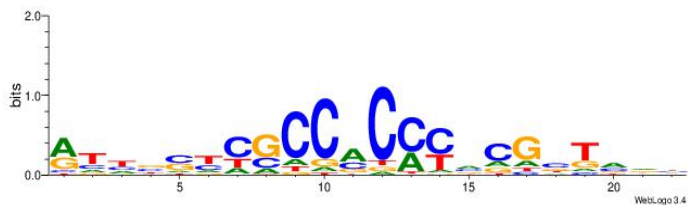
Motif name: Gli2_v016060_secondary

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Reverse Complement

Direction: Forward

Position number: 7

Number of overlap: 10

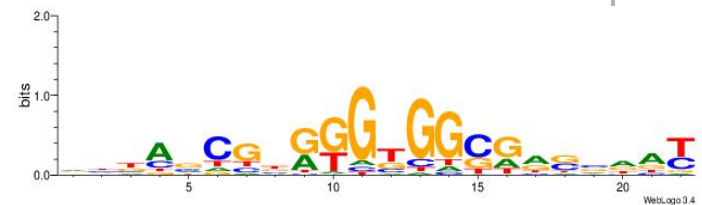Similarity score: 0.0390437

Alignment:

```
HDBABCGBKRGYGGCGMSBHAK
------GGGGGYGGGG------
```

Original motif   Reverse complement motif

Consensus sequence: RTHBSYCGCCMCMYVCGBTVDH   Consensus sequence: HDBABCGBKRGYGGCGMSBHAK

Motif ID: UP00540
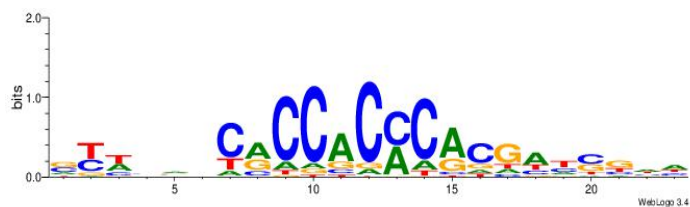
Motif name: Gli3_v016060_secondary

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: 10

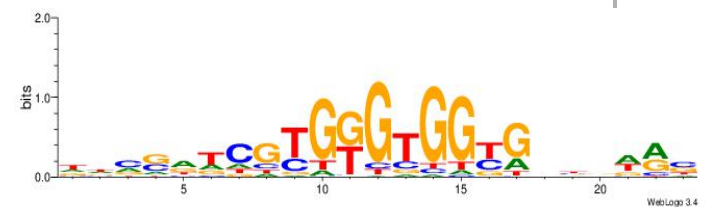Similarity score: 0.0393358

Alignment:

HHBSHTCGTGRGTGGKGDBVWMV

-------GGGGGYGGGG------

Original motif

Consensus sequence: VYWVVHCRCCACMCACGAHSBHH

Reverse complement motif

Consensus sequence: HHBSHTCGTGRGTGGKGDBVWMV

Motif ID: UP00000

Motif name: Smad3_secondary

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Original Motif
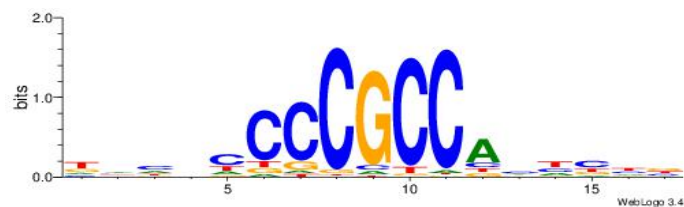
Direction: Backward

Position number: 4

Number of overlap: 10

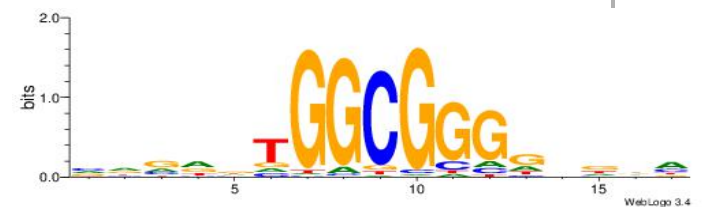Similarity score: 0.0413863

Alignment:

```
DHHBCCCCGCCAHHBHB
----CCCCKCCCCC---
```

Original motif

Consensus sequence: DHHBCCCCGCCAHHBHB

Reverse complement motif

Consensus sequence: BHBHDTGGCGGGGBDHD

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: 4

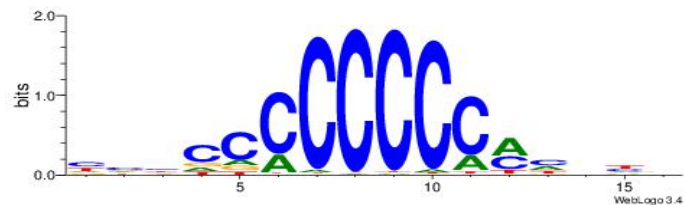Number of overlap: 10

Similarity score: 0.0418947

Alignment:
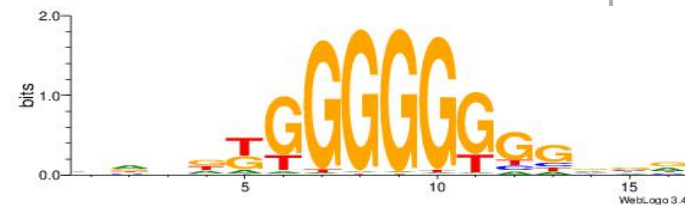
```
HVBCCCCCCCCMHHHB
---CCCCKCCCCC---
```

Original motif

Reverse complement motif

Consensus sequence: HVBCCCCCCCCMHHHB
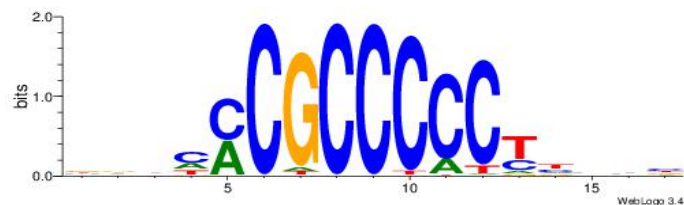

Consensus sequence: BHHDYGGGGGGGGBVD

Motif ID:	UP00002
Motif name:	Sp4_primary
Species:	Mus musculus
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:	0.0420708

Alignment:
```
BDHHMCGCCCCCTHVBB
--CCCCKCCCCC-----
```
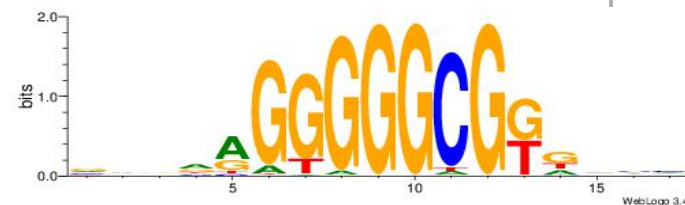
Original motif
Consensus sequence: BDHHMCGCCCCCTHVBB
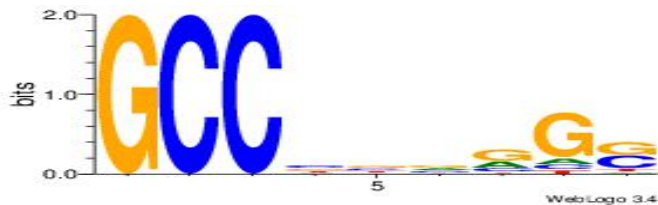

Reverse complement motif
Consensus sequence: BVVHAGGGGGCGRDHHB

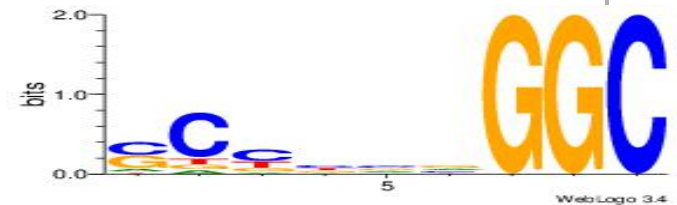**Dataset #: 3   Motif ID: 25   Motif name: TFAP2A**

Original motif

Consensus sequence: GCCBBVRGS

Reverse complement motif

Consensus sequence: SCMVBBGGC

Best Matches for Motif ID 25 (Highest to Lowest)

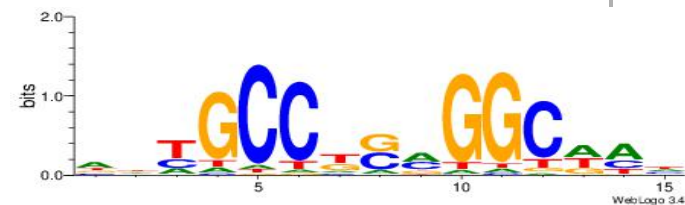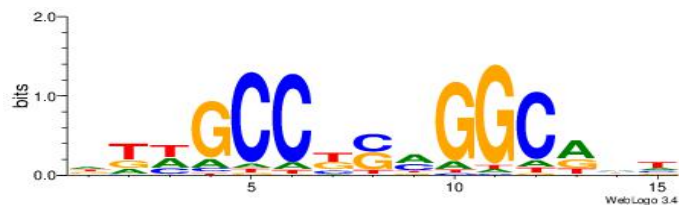|	
Motif ID:	UP00010
Motif name:	Tcfap2b_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	9
Similarity score:	0.0115546

Alignment:

```
HHKGCCYSRGGCWAD
---GCCBBVRGS---
```

Original motif

Consensus sequence: DTWGCCKSMGGCRHH

Reverse complement motif

Consensus sequence: HHKGCCYSRGGCWAD

Motif ID: UP00010
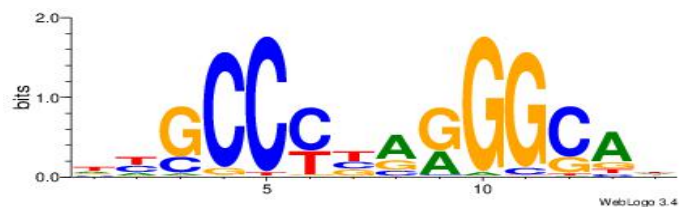
Motif name: Tcfap2b_primary

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Original Motif

Direction: Forward

Position number: 3

Number of overlap: 9
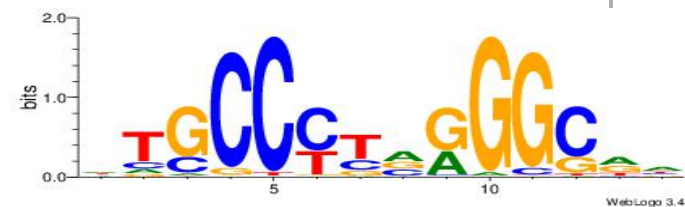
Similarity score: 0.0150447

Alignment:
```
DYGCCYBARGGCAH
--GCCBBVRGS---
```

Original motif   Reverse complement motif
Consensus sequence: DYGCCYBARGGCAH   Consensus sequence: HTGCCMTVKGGCMD

Motif ID: UP00005
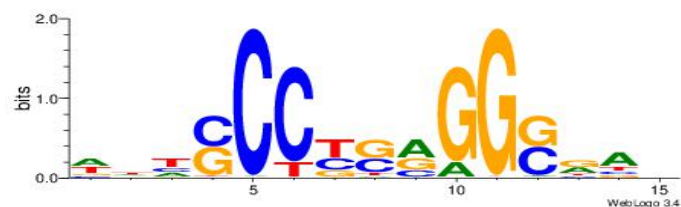
Motif name: Tcfap2a_primary

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: 9
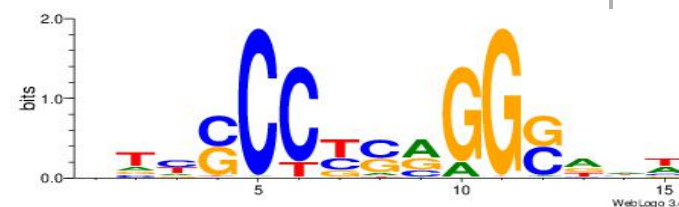
Similarity score: 0.0151527

Alignment:

```
WDHSCCYSRGGSRAD
---GCCBBVRGS---
```

Original motif   Reverse complement motif

Consensus sequence: WDHSCCYSRGGSRAD   Consensus sequence: DTMSCCKSMGGSHDW

Motif ID: UP00087

Motif name: Tcfap2c_primary

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Original Motif

Direction: Backward

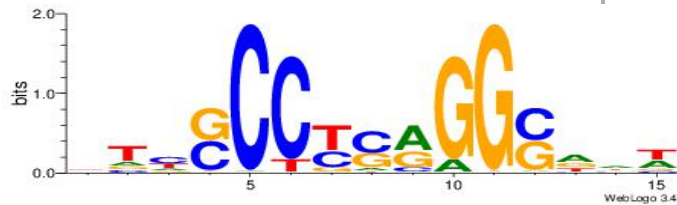Position number: 4

Number of overlap: 9

Similarity score: 0.016909

Alignment:
```
WHHSCCYSRGGSDAD
---GCCBBVRGS---
```

Original motif
Consensus sequence: WHHSCCYSRGGSDAD

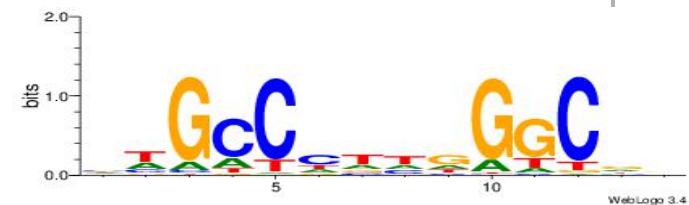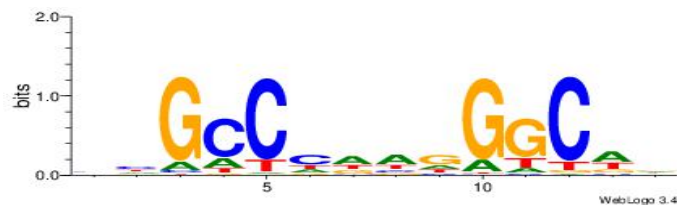Reverse complement motif
Consensus sequence: DTHSCCKSMGGSHHW

Motif ID:	UP00087
Motif name:	Tcfap2c_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	9
Similarity score:	0.0170259

Alignment:
```
BHGCCCDAGGGCWD
--GCCBBVRGS---
```

Original motif
Consensus sequence: BHGCCCDAGGGCWD

Reverse complement motif
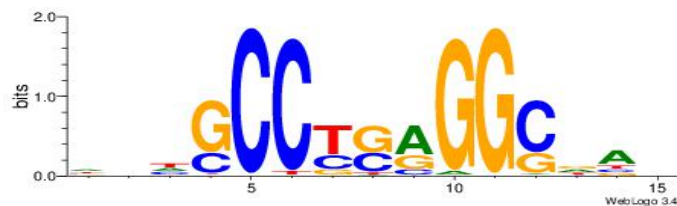Consensus sequence: HWGCCCTDGGGCDB

Motif ID: [UP00028](UP00028)

Motif name: Tcfap2e_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: 9

Similarity score: 0.0198854

Alignment:
```
HHHGCCTSAGGCDAD
---GCCBBVRGS---
```
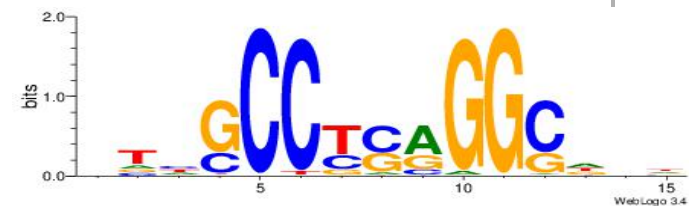
Original motif

Consensus sequence: HHHGCCTSAGGCDAD

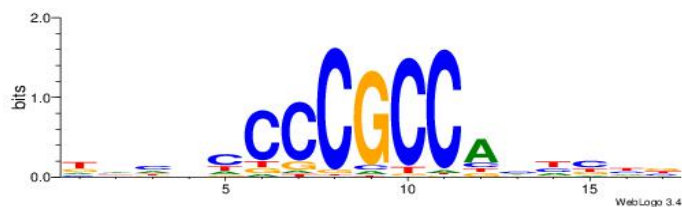Reverse complement motif

Consensus sequence: DTHGCCTSAGGCHHH

Motif ID: UP00000

Motif name: Smad3_secondary

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Reverse Complement

Direction: Backward

Position number: 9

Number of overlap: 9

Similarity score: 0.0203681

Alignment:
```
BHBHDTGGCGGGGBDHD
SCMVBBGGC--------
```
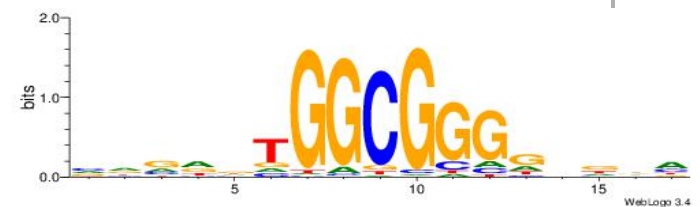
Original motif

Consensus sequence: DHHBCCCCGCCAHHBHB

Reverse complement motif

Consensus sequence: BHBHDTGGCGGGGBDHD

Motif ID: UP00003

Motif name: E2F3_secondary

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Reverse Complement

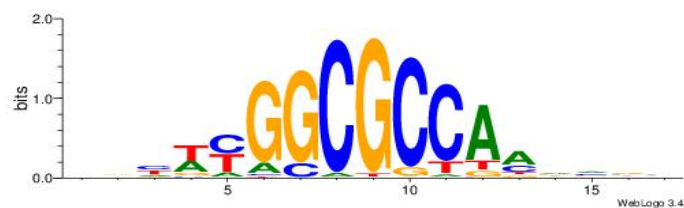Direction: Forward

Position number: 1

Number of overlap: 9

Similarity score: 0.0217064
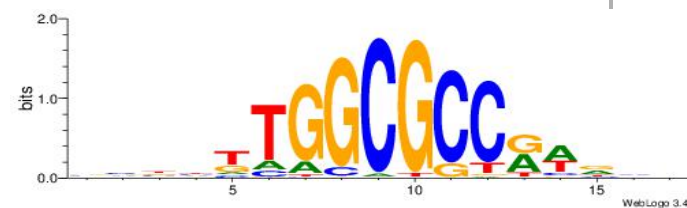

Alignment:

```
BBBDYTGGCGCCKWDBD
SCMVBBGGC--------
```

Original motif   Reverse complement motif

Consensus sequence: HBHWYGGCGCCAMDVBB   Consensus sequence: BBBDYTGGCGCCKWDBD

Motif ID: UP00005

Motif name: Tcfap2a_secondary

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Original Motif

Direction: Forward

Position number: 3

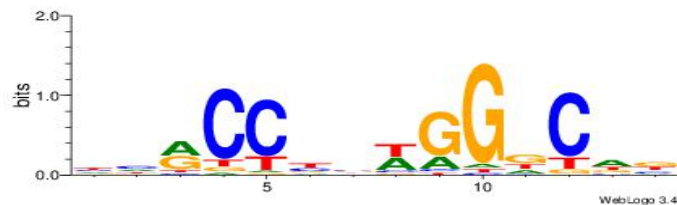Number of overlap: 9

Similarity score: 0.0234775

Alignment:

```
HHRCCBBWGGDCDB
--GCCBBVRGS---
```
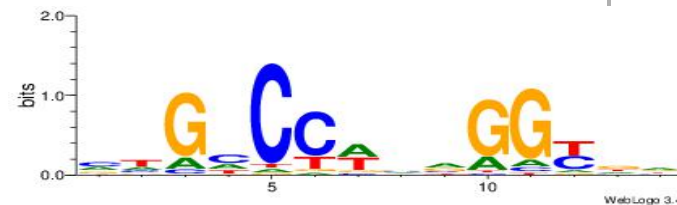
Original motif   Reverse complement motif

Consensus sequence: HHRCCBBWGGDCDB

Consensus sequence: BDGHCCWBVGGKDH

Motif ID: UP00093
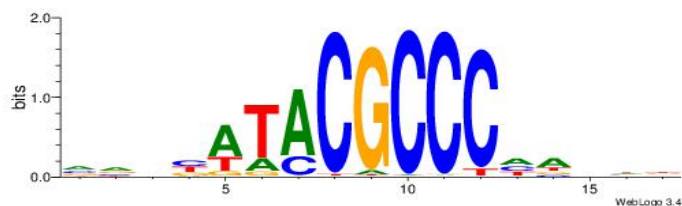Motif name: Klf7_secondary
Species: Mus musculus
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 1
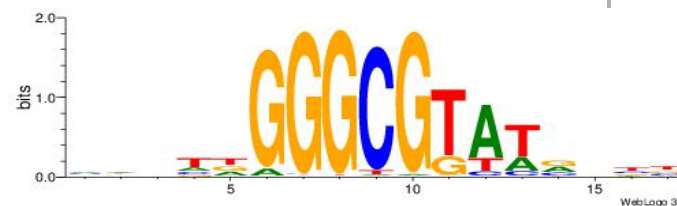Number of overlap: 9
Similarity score: 0.026642

Alignment:
VVDBATACGCCCHAHHD
--------GCCBBVRGS

Original motif   Reverse complement motif
Consensus sequence: VVDBATACGCCCHAHHD   Consensus sequence: DHDTHGGGCGTATBHBB

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)

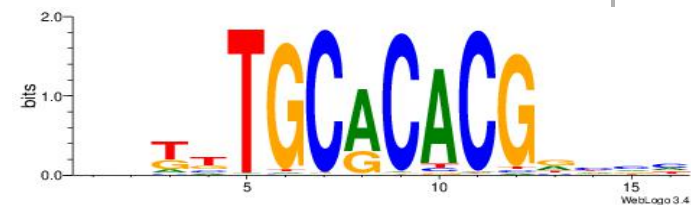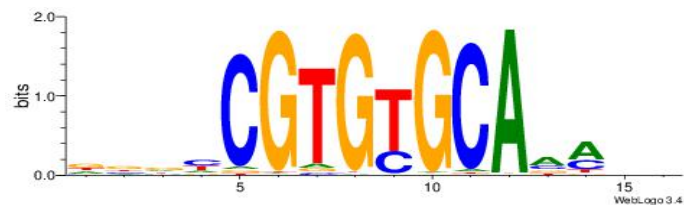|	
Motif ID:	UP00097
Motif name:	Mtf1_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	8
Similarity score:	0

Alignment:

```
HDYTTGCACACGDHBH
-------VCACGTBV-
```

Original motif

Consensus sequence: DBDHCGTGTGCAAMDH

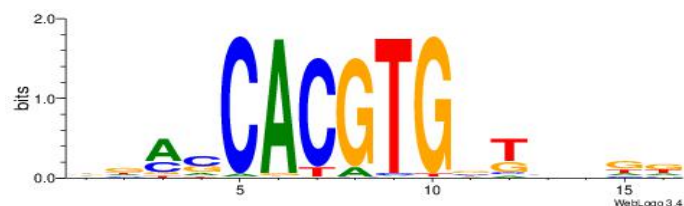Reverse complement motif

Consensus sequence: HDYTTGCACACGDHBH

Motif ID:	UP00060
Motif name:	Max_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:	8
Similarity score:	0.000574345

Alignment:

```
HHVBABCACGTGSTHD
-----VCACGTBV---
```
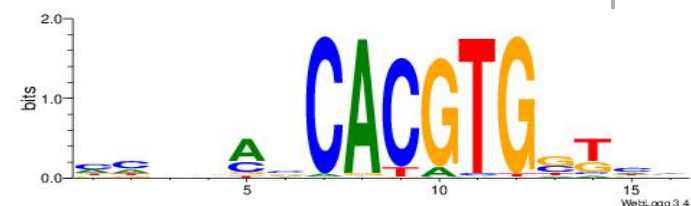
Original motif
Consensus sequence: DDASCACGTGBTBVDD

Reverse complement motif
Consensus sequence: HHVBABCACGTGSTHD

Motif ID:	UP00050

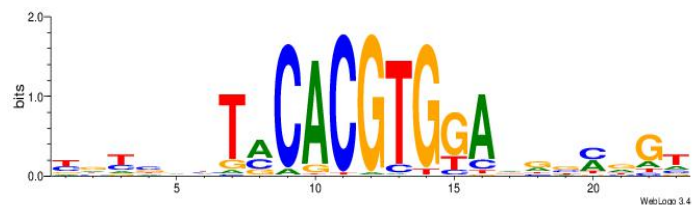Motif name: Bhlhb2_secondary

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: 8
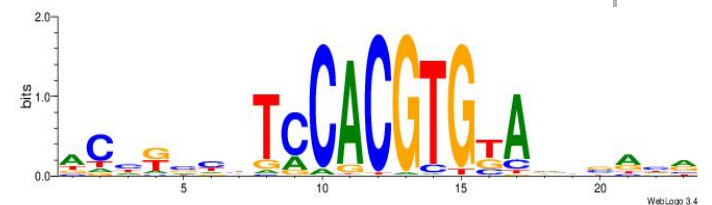
Similarity score: 0.00642455

Alignment:

```
YDYBDHTMCACGTGGADDBMDGT
-------VBACGTGV--------
```

Original motif

Consensus sequence: YDYBDHTMCACGTGGADDBMDGT

Reverse complement motif

Consensus sequence: ACHRBHDTCCACGTGYAHHBMHM

Motif ID: UP00084

Motif name: Gmeb1_primary

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Reverse Complement

Direction: Backward

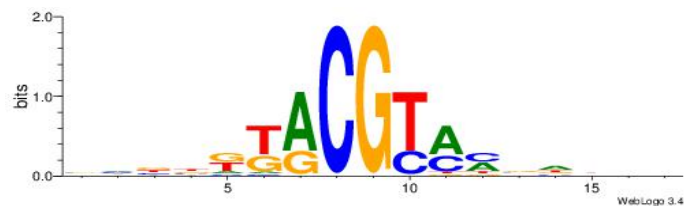Position number: 5

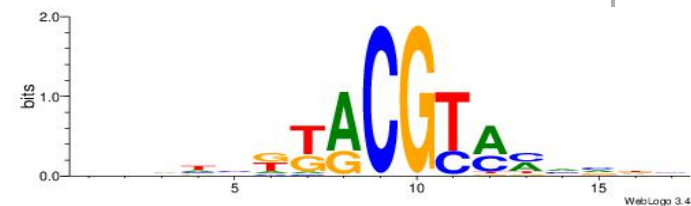Number of overlap: 8

Similarity score: 0.0131171

Alignment:
```
BVVDVRYACGTRYVBHB
-----VBACGTGV----
```

Original motif
Consensus sequence: BHBBKKACGTMMVDBVB

Reverse complement motif
Consensus sequence: BVVDVRYACGTRYVBHB

Motif ID: UP00050

Motif name: Bhlhb2_primary

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Original Motif

Direction: Backward

Position number: 8

Number of overlap: 8

Similarity score: 0.014006

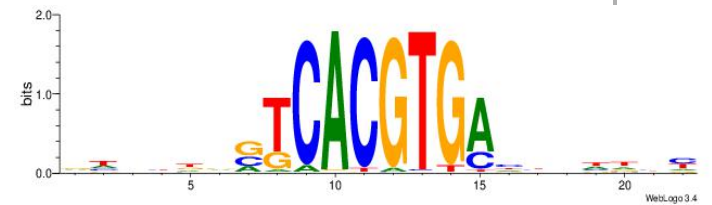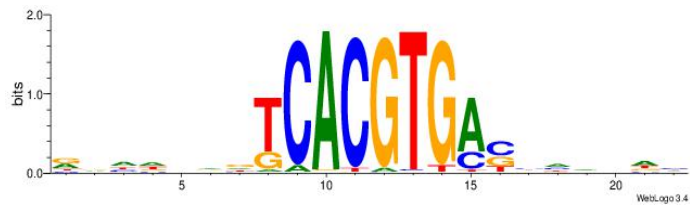Alignment:
```
RDHDBVDTCACGTGASBHVHDH
-------VCACGTBV-------
```

Original motif
Consensus sequence: RDHDBVDTCACGTGASBHVHDH
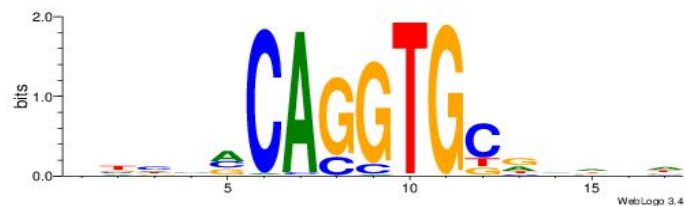
Reverse complement motif
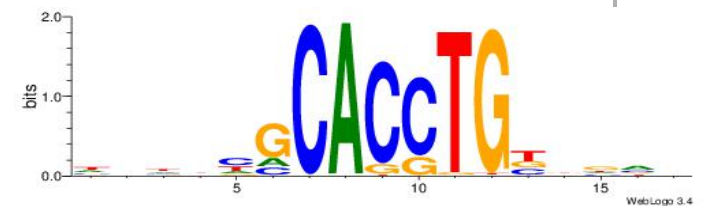Consensus sequence: DDHBHBSTCACGTGAHBBDHHM

Motif ID: [UP00046](UP00046)

Motif name: Tcfe2a_primary

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Original Motif

Direction: Forward

Position number: 5

Number of overlap: 8

Similarity score: 0.0184296

Alignment:
```
VBHHVCAGGTGCDVDHD
----VBACGTGV-----
```

Original motif
Consensus sequence: VBHHVCAGGTGCDVDHD

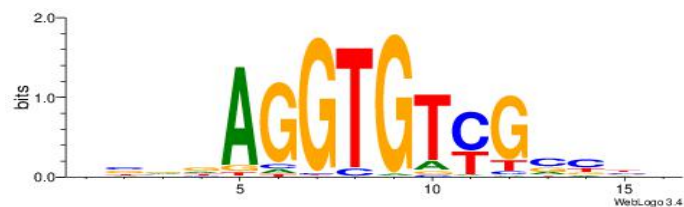Reverse complement motif
Consensus sequence: DHDBHGCACCTGBDDVB

Motif ID: UP00068

Motif name: Eomes_secondary

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: 8

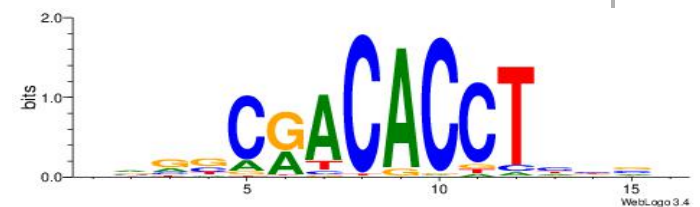Similarity score: 0.0188154

Alignment:

VVBVCKACACCTHVBV

------VCACGTBV--

Original motif   Reverse complement motif

Consensus sequence: VBVDAGGTGTYGVBBV   Consensus sequence: VVBVCKACACCTHVBV

Motif ID: UP00026
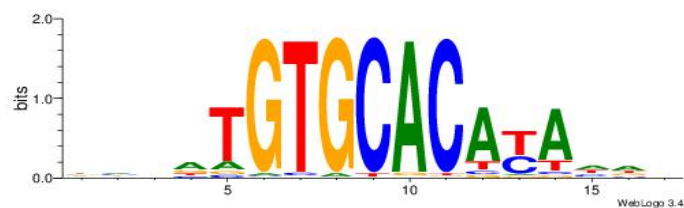
Motif name: Zscan4_primary

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: 8
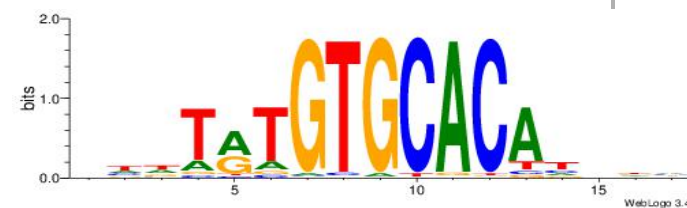
Similarity score: 0.0189568

Alignment:

DHVDTGTGCACAYAHDH

-VBACGTGV--------

Original motif   Reverse complement motif

Consensus sequence: DHVDTGTGCACAYAHDH   Consensus sequence: HDHTMTGTGCACADVHD

Motif ID: UP00042
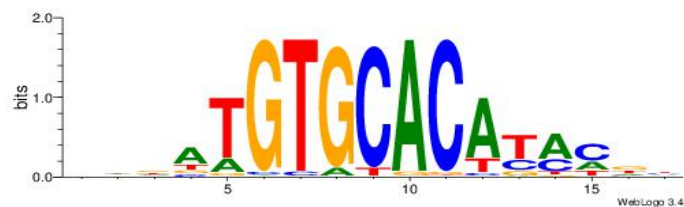
Motif name: Gm397_primary

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Reverse Complement

Direction: Backward

Position number: 8

Number of overlap: 8

Similarity score: 0.0198987

Alignment:

HHRTATGTGCACATHHD

--VBACGTGV-------
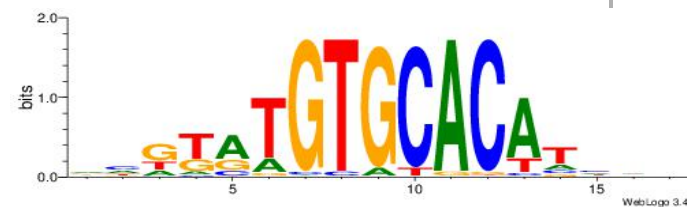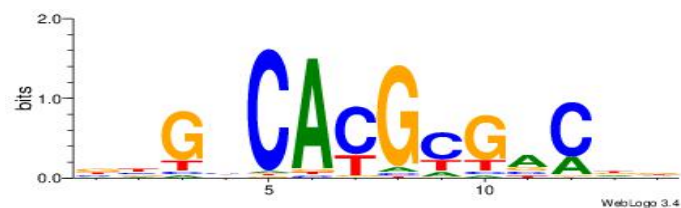
Original motif   Reverse complement motif

Consensus sequence: HHDATGTGCACATAMDH

Consensus sequence: HHRTATGTGCACATHHD

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: 4

Number of overlap: 8
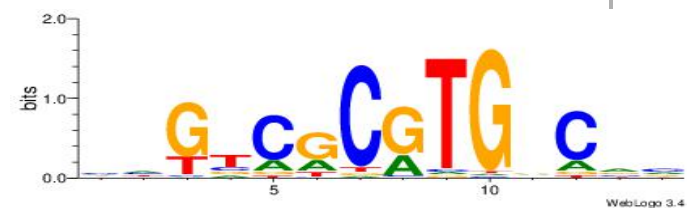
Similarity score: 0.021967

Alignment:
```
BBGHCACGCGACDD
---VCACGTBV---
```

Original motif
Consensus sequence: BBGHCACGCGACDD

Reverse complement motif
Consensus sequence: HDGTCGCGTGDCVB

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)

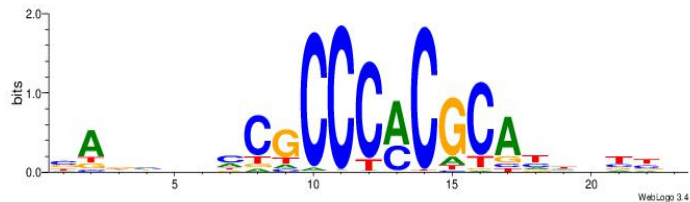|	
Motif ID:	UP00400
Motif name:	Zif268
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	7
Number of overlap:	6
Similarity score:	0

Alignment:

```
VVVDHHTGCGYGGGCGDHVHHTB
------YGCGTG-----------
```

Original motif

Consensus sequence: BADHBDHCGCCCMCGCAHHDBBV

Reverse complement motif

Consensus sequence: VVVDHHTGCGYGGGCGDHVHHTB
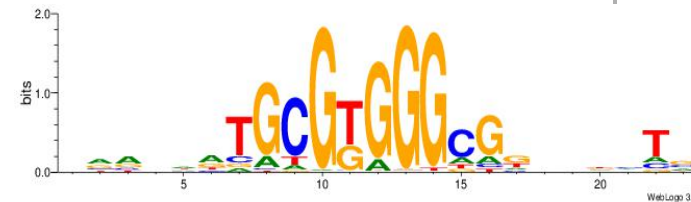
Motif ID: UP00002
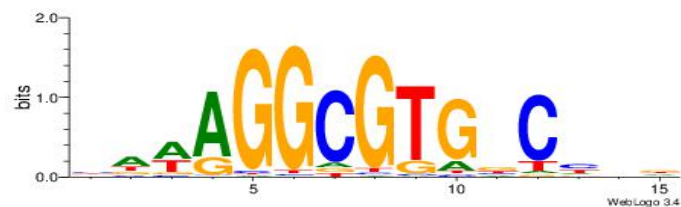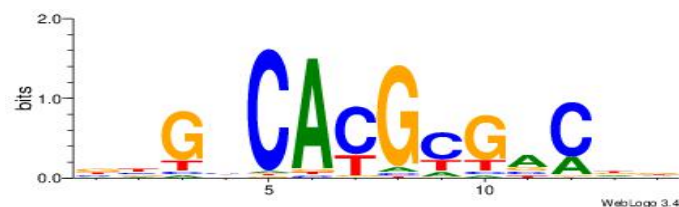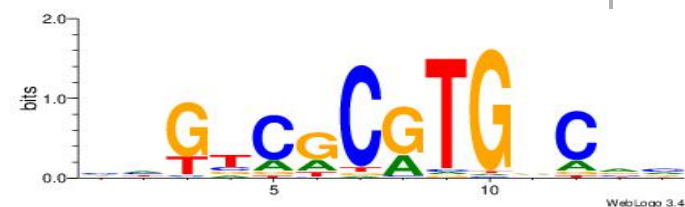
Motif name: Sp4_secondary

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Reverse Complement

Direction: Forward

Position number: 6

Number of overlap: 6

Similarity score: 0.00183587

Alignment:
```
HHDGBCACGCCTWDB
-----CACGCM----
```

Original motif   Reverse complement motif

Consensus sequence: BDWAGGCGTGBCHHD   Consensus sequence: HHDGBCACGCCTWDB
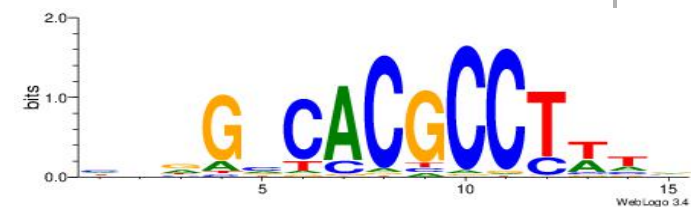
Motif ID: UP00060

Motif name: Max_secondary

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Reverse Complement

Direction: Backward

Position number: 5

Number of overlap: 6

Similarity score: 0.00348048

Alignment:

```
HDGTCGCGTGDCVB
----YGCGTG----
```

Original motif

Consensus sequence: BBGHCACGCGACDD

Reverse complement motif

Consensus sequence: HDGTCGCGTGDCVB

Motif ID: UP00527

Motif name: Foxn4_primary

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Reverse Complement

Direction: Forward

Position number: 8

Number of overlap: 6

Similarity score: 0.00526158
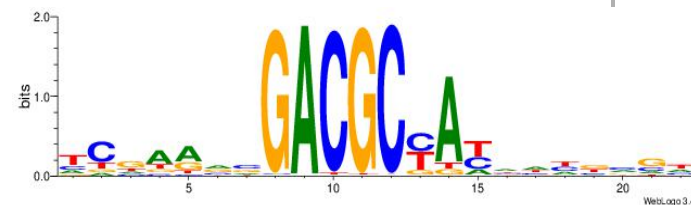
Alignment:
```
TCDAMVBGACGCMAKDDDVBBD
-------CACGCM---------
```

| Original motif	Reverse complement motif
Consensus sequence: DBBVDDDRTRGCGTCBBYTHGA	Consensus sequence: TCDAMVBGACGCMAKDDDVBBD
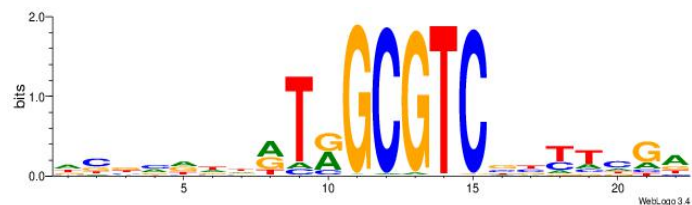
Motif ID: UP00042
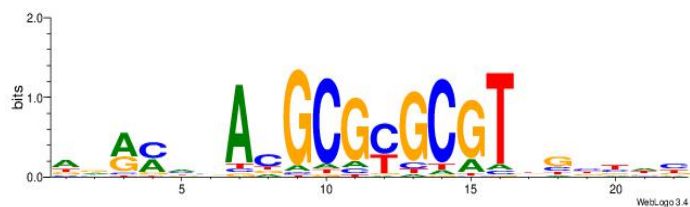
Motif name: Gm397_second

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Reverse Complement

Direction: Backward

Position number: 8

Number of overlap: 6

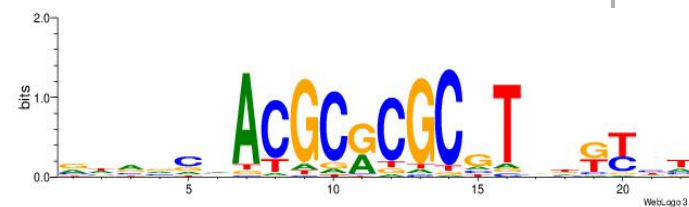Similarity score: 0.00558171

Alignment:
```
HBGYGTGTGTGCVRVD
---YGCGTG-------
```

Original motif	Reverse complement motif
Consensus sequence: DVMVGCACACACKCVH	Consensus sequence: HBGYGTGTGTGCVRVD
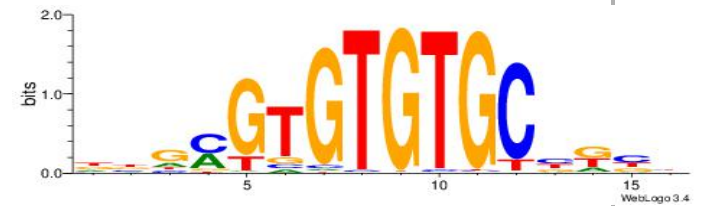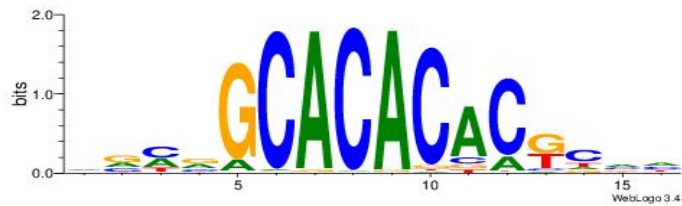
Motif ID:	[UP00097](UP00097)
Motif name:	Mtf1_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	9
Number of overlap:	6
Similarity score:	0.00702416

Alignment:
```
HDYTTGCACACGDHBH
--------CACGCM--
```

Original motif
Consensus sequence: DBDHCGTGTGCAAMDH
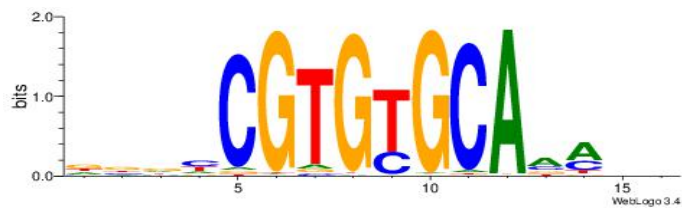
Reverse complement motif
Consensus sequence: HDYTTGCACACGDHBH
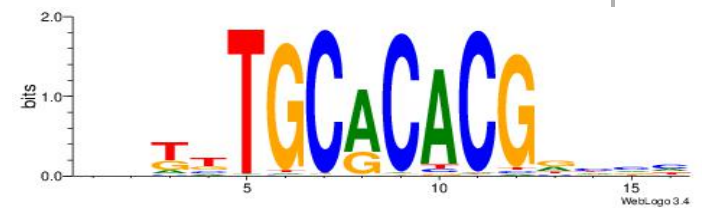
Motif ID: UP00526

Motif name: Foxn1_secondary

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Original Motif

Direction: Forward

Position number: 8

Number of overlap: 6

Similarity score: 0.0123233

Alignment:

DDRMHBACGCGYGCGTDGBBDB
-------YGCGTG---------

Original motif   Reverse complement motif

Consensus sequence: DDRMHBACGCGYGCGTDGBBDB   Consensus sequence: BDVBCDACGCKCGCGTBHRKHD

Motif ID: UP00007

Motif name: Egr1_primary

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Original Motif
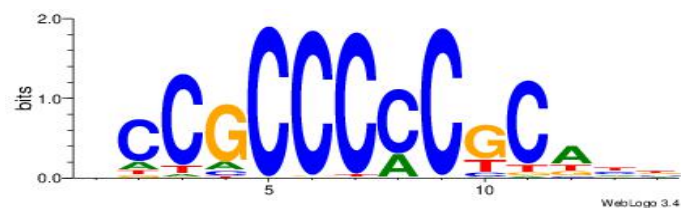
Direction: Backward

Position number: 3

Number of overlap: 6

Similarity score: 0.0141579
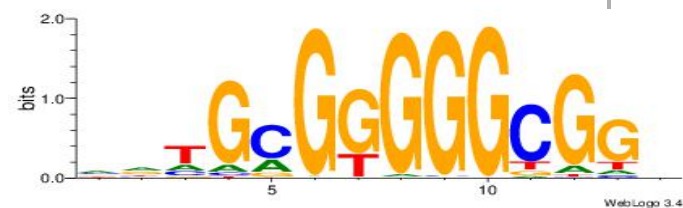
Alignment:

```
HCCGCCCCCGCAHB
------CACGCM--
```

Original motif

Consensus sequence: HCCGCCCCCGCAHB

Reverse complement motif

Consensus sequence: VHTGCGGGGGCGGH

Motif ID: UP00538

Motif name: Gli1_v016060_primary

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Original Motif

Direction: Backward

Position number: 11

Number of overlap: 6

Similarity score: 0.0144485

Alignment:

```
BHCBCBCCGGGTGGTCYHVHDCH
-------YGCGTG----------
```

Original motif

Reverse complement motif

Consensus sequence: BHCBCBCCGGGTGGTCYHVHDCH
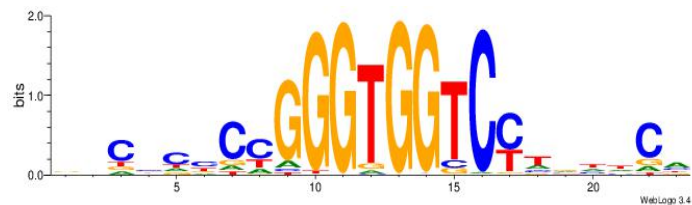
Consensus sequence: HGDHVHKGACCACCCGGBGBGDB
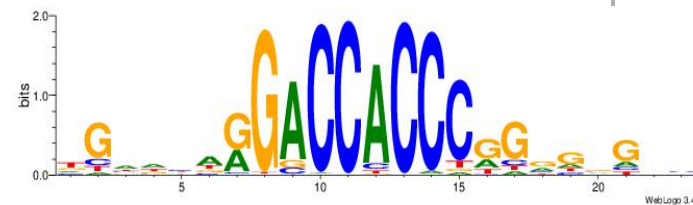
Motif ID:	UP00527
Motif name:	Foxn4_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	8
Number of overlap:	6
Similarity score:	0.0172109

Alignment:
```
VHYTCCDWCCGCGTCMMTHWHV
---------YGCGTG-------
```

Original motif

Consensus sequence: VDWDARRGACGCGGWHGGAKHV
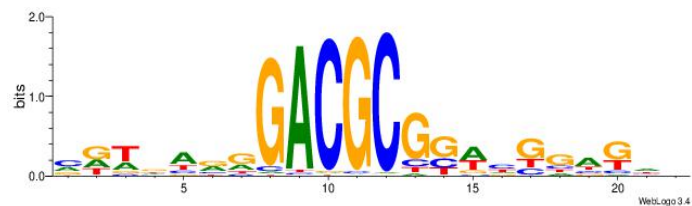
Reverse complement motif

Consensus sequence: VHYTCCDWCCGCGTCMMTHWHV
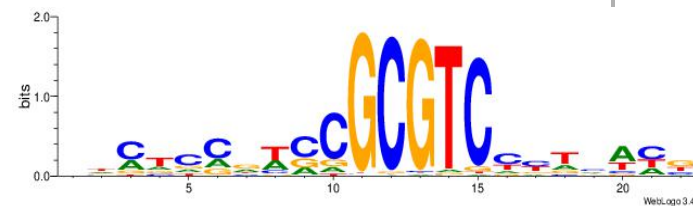
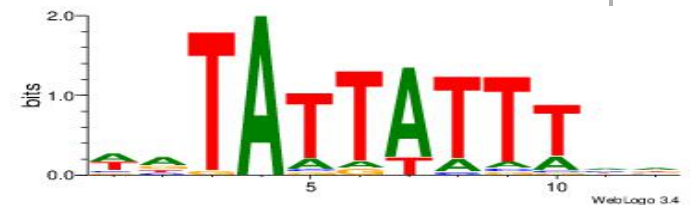**Dataset #: 4   Motif ID: 37   Motif name: tkAAATAATAtw**

Original motif   Reverse complement motif
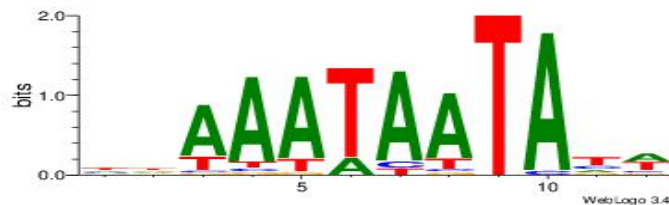
Consensus sequence: HDAAATAATAHW   Consensus sequence: WHTATTATTTDH

Best Matches for Motif ID 37 (Highest to Lowest)

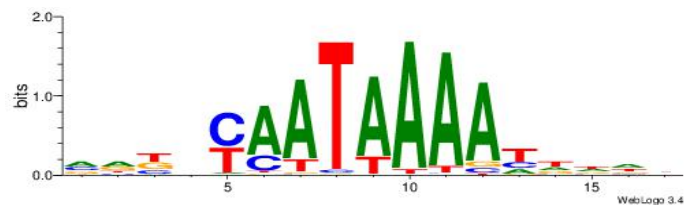|	
Motif ID:	UP00121
Motif name:	Hoxd10
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	12
Similarity score:	0.00353196

Alignment:

HDDDATTTTATTKVRDB
---WHTATTATTTDH--

Original motif   Reverse complement motif

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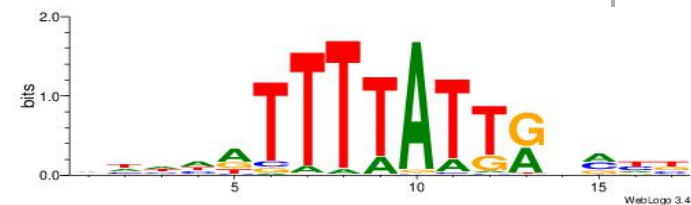
Motif ID:	UP00244
Motif name:	Tlx2
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	12
Similarity score:	0.00646023

Alignment:

```
WWDTTATTAATTHATTV
--WHTATTATTTDH---
```

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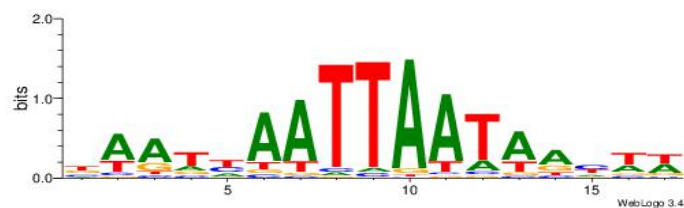
Reverse complement motif
Consensus sequence: WWDTTATTAATTHATTV
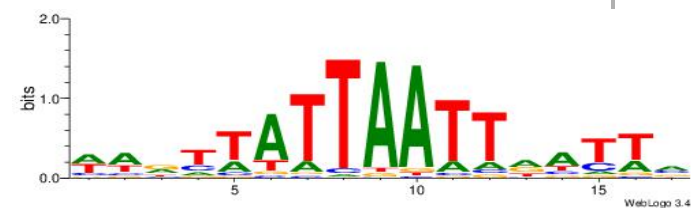
Motif ID: UP00051

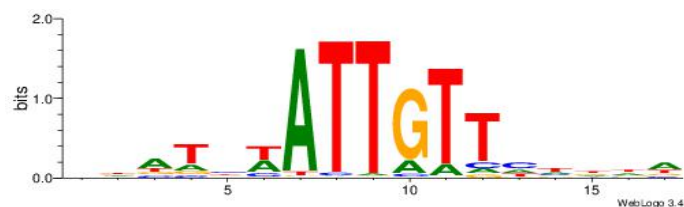Motif name: Sox8_primary

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
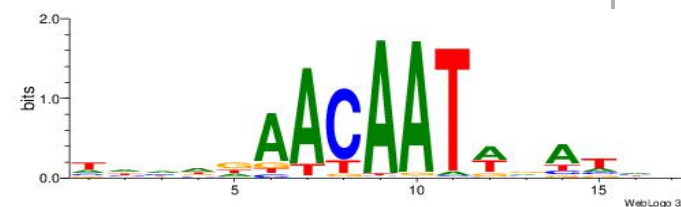
Similarity score: 0.0120674

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
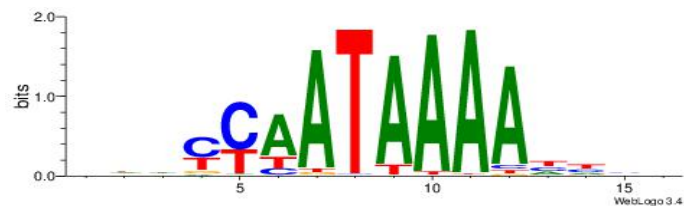
Number of overlap: 12
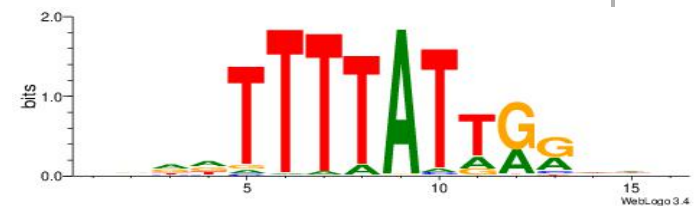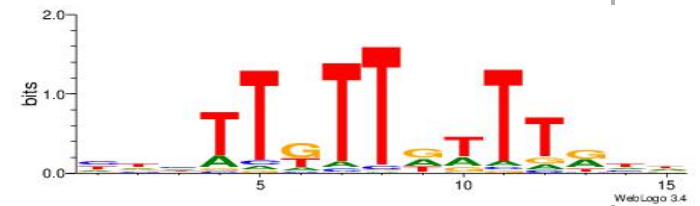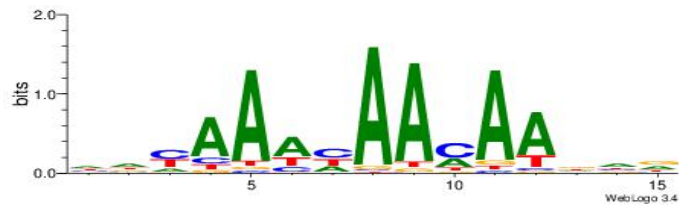
Similarity score: 0.0123772

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

Motif ID: [UP00064](UP00064)

Motif name: Sox18_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: 12
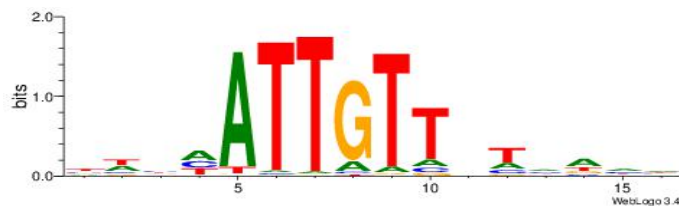
Similarity score: 0.0130138
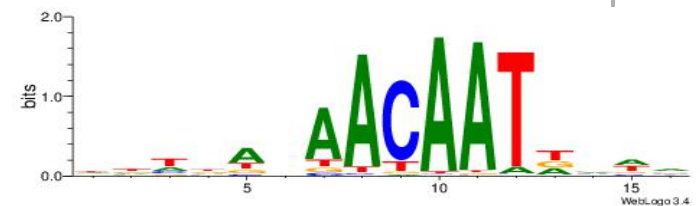
Alignment:
```
HHDHABAACAATHBWV
---HDAAATAATAHW-
```

Original motif

Consensus sequence: BWBHATTGTTBTHDHH

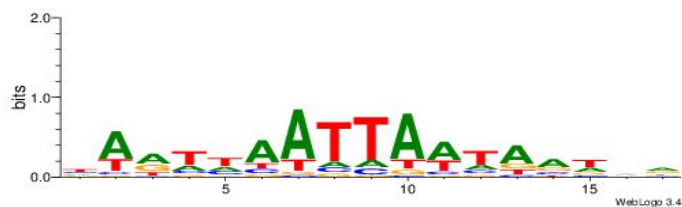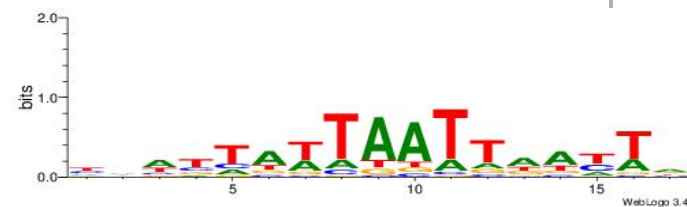Reverse complement motif

Consensus sequence: HHDHABAACAATHBWV

Motif ID: UP00255

Motif name: Dbx1

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: 12

Similarity score: 0.0131034

Alignment:

```
HARTHAATTAWTAVDHD
---HDAAATAATAHW--
```

Original motif   Reverse complement motif

Consensus sequence: HARTHAATTAWTAVDHD   Consensus sequence: DHDBTAWTAATTHAKTH

Motif ID: UP00024

Motif name: Glis2_secondary

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Original Motif
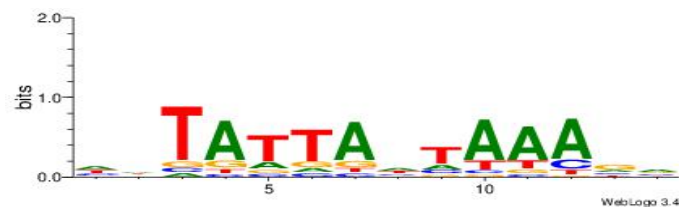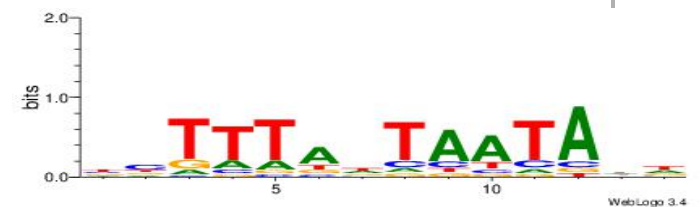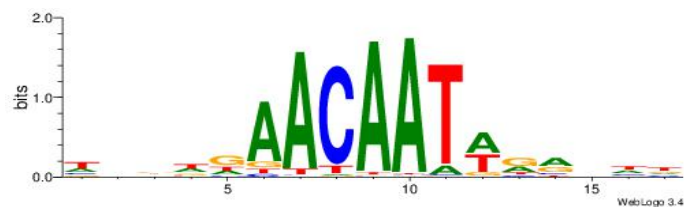
Direction: Forward

Position number: 1

Number of overlap: 12

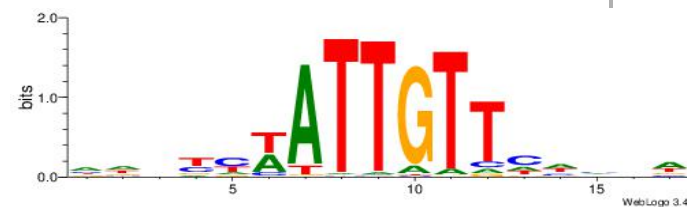Similarity score: 0.0140433

Alignment:

```
HDTATTAHTAAAVV
WHTATTATTTDH--
```


Original motif   Reverse complement motif

Consensus sequence: HDTATTAHTAAAVV   Consensus sequence: BVTTTAHTAATADH

Motif ID: UP00075

Motif name: Sox15_primary

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: 0.0143532

Alignment:

```
DHVKMWATTGTTHDHDH
---WHTATTATTTDH--
```


Original motif   Reverse complement motif

Consensus sequence: HDDDDAACAATWRRBHD

Consensus sequence: DHVKMWATTGTTHDHDH

Motif ID:	UP00096
Motif name:	Sox13_primary
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:	0.014607

Alignment:
```
WHDWWATTGTTCKDHD
--WHTATTATTTDH--
```

Original motif
Consensus sequence: DHDRGAACAATWWDHW
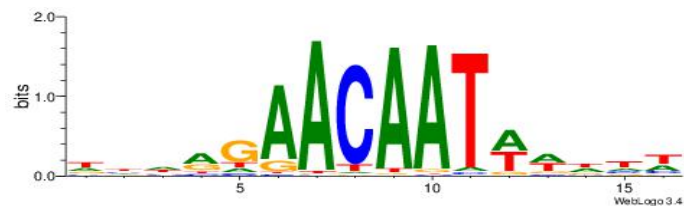
Reverse complement motif
Consensus sequence: WHDWWATTGTTCKDHD
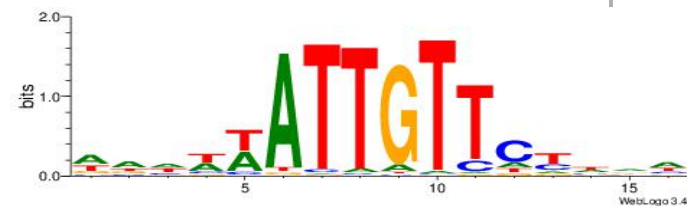
Dataset #: 4   Motif ID: 41   Motif name: wwAAATAATAtw

Original motif
Consensus sequence: HDAAATAATADD
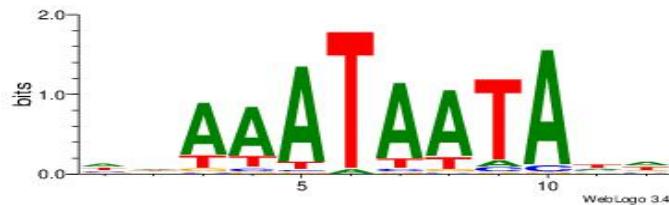
Reverse complement motif
Consensus sequence: DDTATTATTTDH
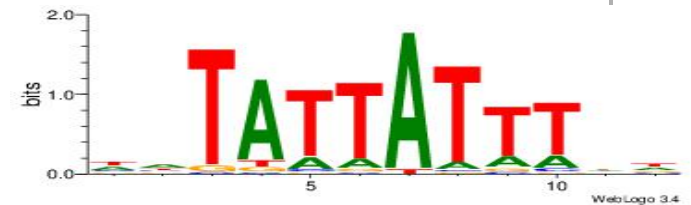
Best Matches for Motif ID 41 (Highest to Lowest)

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
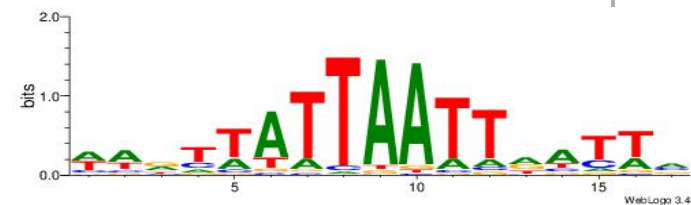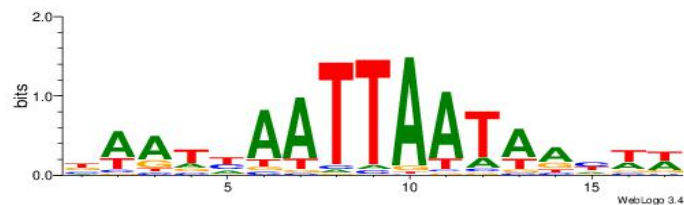
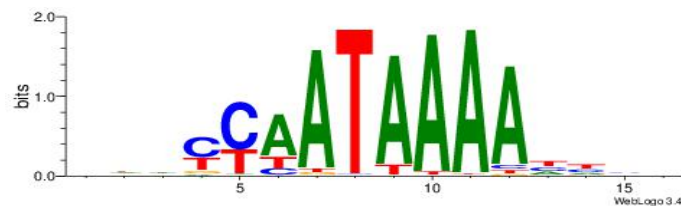| Motif ID:	[UP00121](UP00121)
Motif name:	Hoxd10
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	12
Similarity score:	0.00673636

Alignment:

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

Original motif
Consensus sequence: VDKVYAATAAAATDDDH
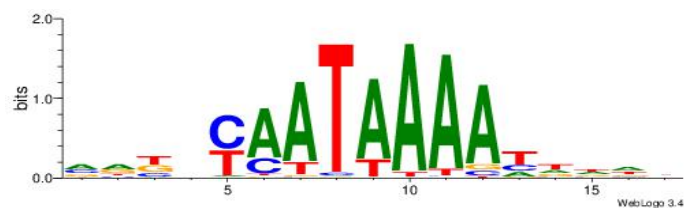
Reverse complement motif
Consensus sequence: HDDDATTTTATTKVRDB
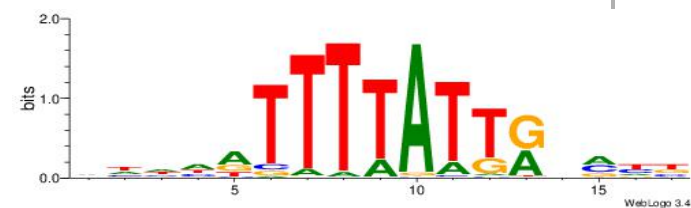
Motif ID: [UP00180](UP00180)

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

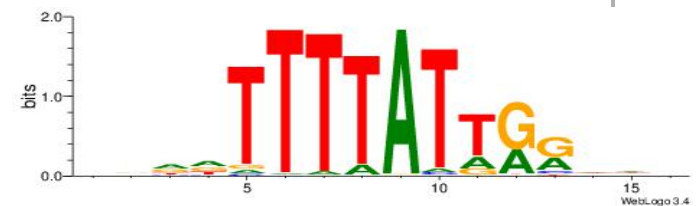Alignment:

```
HDHHTTTTATTKKHDD
--DDTATTATTTDH--
```

Original motif

Consensus sequence: HDHYYAATAAAAHHHH

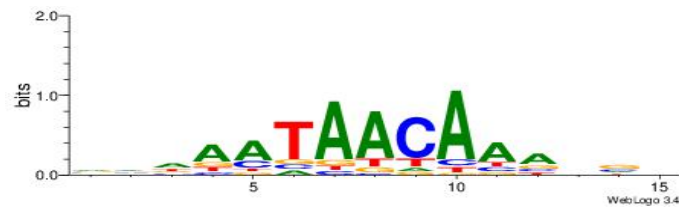Reverse complement motif

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

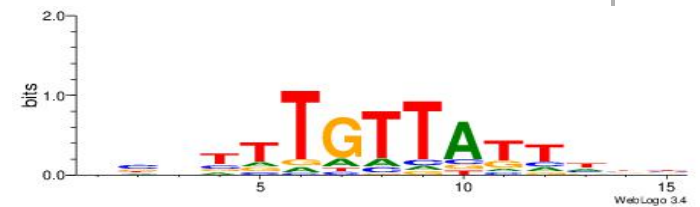Alignment:

VVDAATAACAAAVVB

HDAAATAATADD---

Original motif

Consensus sequence: VVDAATAACAAAVVB

Reverse complement motif

Consensus sequence: BVVTTTGTTATTDBB

Motif ID: [UP00134](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

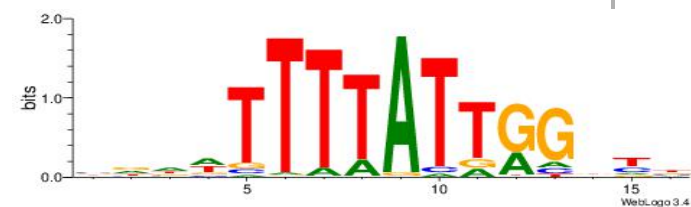Number of overlap: 12

Similarity score: 0.0121723

Alignment:

VDHWTTTTATTGGDKB

--DDTATTATTTDH--

Original motif

Consensus sequence: VRHCCAATAAAAWHHV

Reverse complement motif
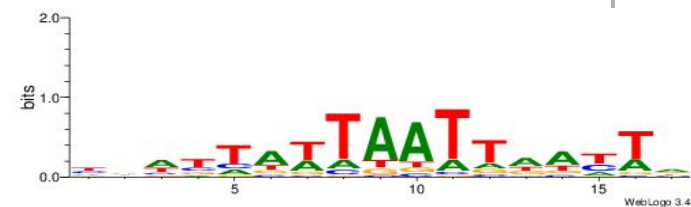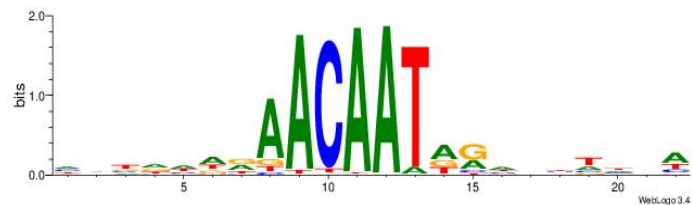
Consensus sequence: VDHWTTTTATTGGDKB

Motif ID:	UP00255
Motif name:	Dbx1
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:	12
Similarity score:	0.0133808

Alignment:
```
HARTHAATTAWTAVDHD
---HDAAATAATADD--
```

Original motif
Consensus sequence: HARTHAATTAWTAVDHD

Reverse complement motif
Consensus sequence: DHDBTAWTAATTHAKTH

Motif ID: UP00034

Motif name:	Sox7_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	7
Number of overlap:	12
Similarity score:	0.0144702

Alignment:

```
HHBDHDDAACAATDRHHHHHBW
----HDAAATAATADD------
```

Original motif

Consensus sequence: HHBDHDDAACAATDRHHHHHBW

Reverse complement motif

Consensus sequence: WBHHHHHHMDATTGTTHDHDVHH
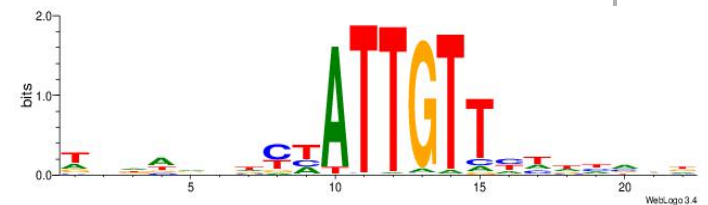
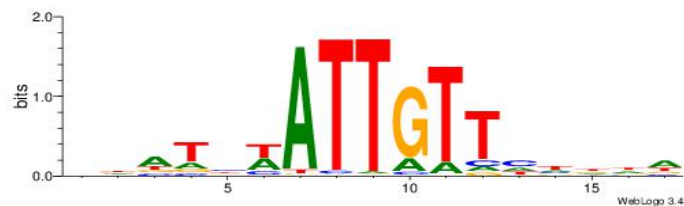|	
Motif ID:	UP00051
Motif name:	Sox8_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	4
Number of overlap:	12

Similarity score: 0.0145614

Alignment:
```
DDATBWATTGTTHHDDD
---DDTATTATTTDH--
```
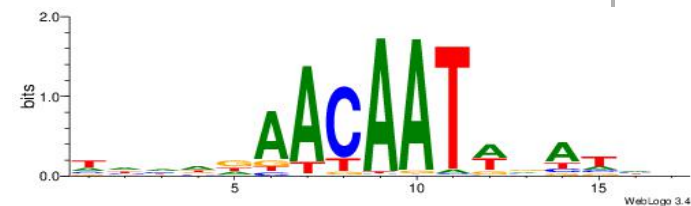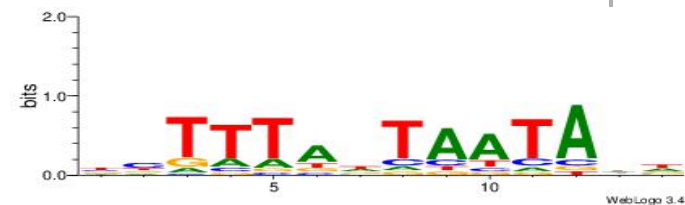
Original motif
Consensus sequence: DDATBWATTGTTHHDDD

Reverse complement motif
Consensus sequence: DDDHDAACAATWBATDD

Motif ID: UP00024

Motif name: Glis2_secondary

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Reverse Complement

Direction: Backward

Position number: 1

Number of overlap: 12

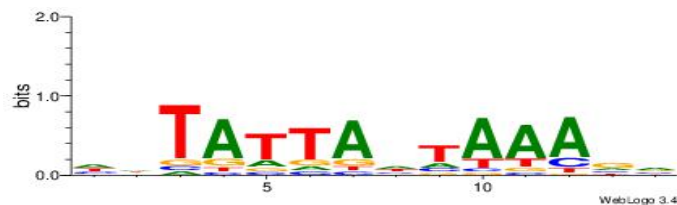Similarity score: 0.0148858

Alignment:
```
BVTTTAHTAATADH
--HDAAATAATADD
```

Original motif
Consensus sequence: HDTATTAHTAAAVV
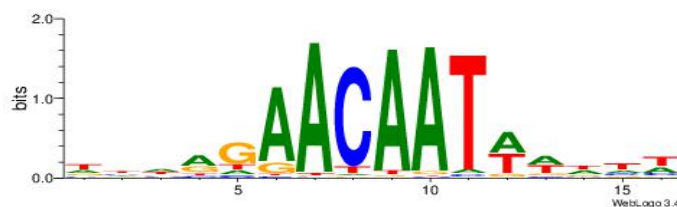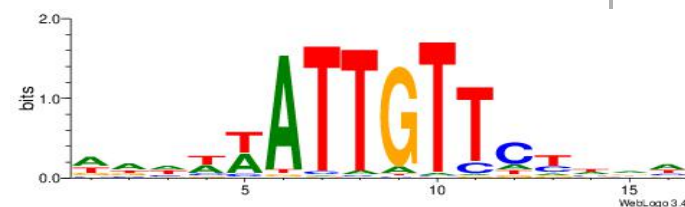
Reverse complement motif
Consensus sequence: BVTTTAHTAATADH

Motif ID:	UP00096
Motif name:	Sox13_primary
Species:	Mus musculus
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:	0.014968

Alignment:
DHDRGAACAATWWDHW
--HDAAATAATADD--

Original motif
Consensus sequence: DHDRGAACAATWWDHW

Reverse complement motif
Consensus sequence: WHDWWATTGTTCKDHD

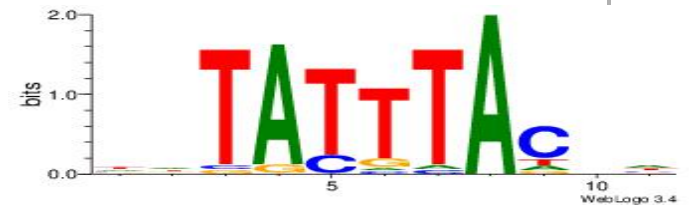**Dataset #: 4   Motif ID: 45   Motif name: wbgTAAATAww**

Original motif
Consensus sequence: DBGTAAATAHD

Reverse complement motif
Consensus sequence: DHTATTTACBD

Best Matches for Motif ID 45 (Highest to Lowest)

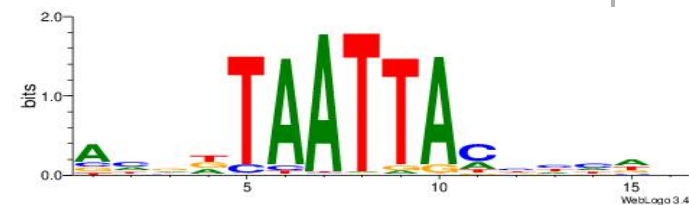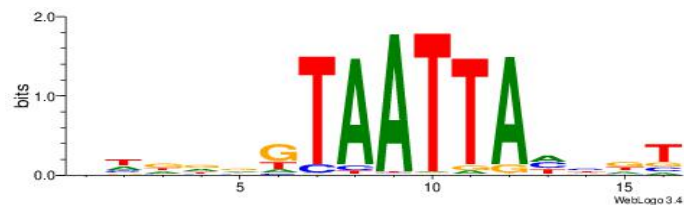|	
Motif ID:	UP00242
Motif name:	Hoxc8
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	11
Similarity score:	0

Alignment:

AHDHTAATTACHHHHV
--DHTATTTACBD---

Original motif
Consensus sequence: BHDDDGTAATTAHHDT

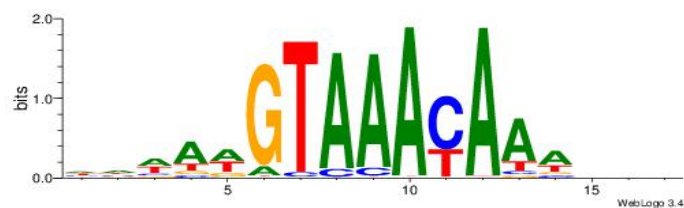Reverse complement motif
Consensus sequence: AHDHTAATTACHHHHV

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---
```
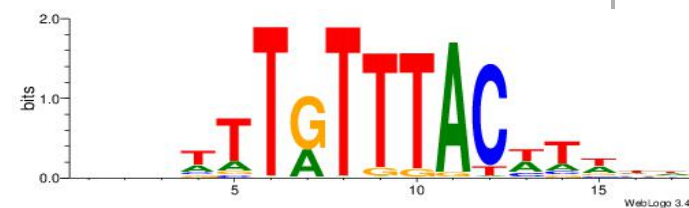
Original motif
Consensus sequence: HHWAWGTAAAYAAAVDB

Reverse complement motif
Consensus sequence: BDVTTTKTTTACWTWHH

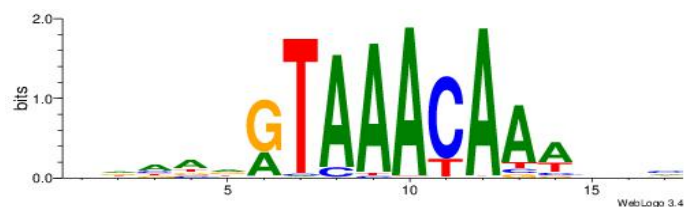Motif ID: UP00039

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---
```
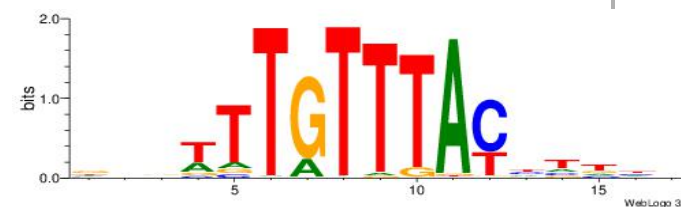
Original motif

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

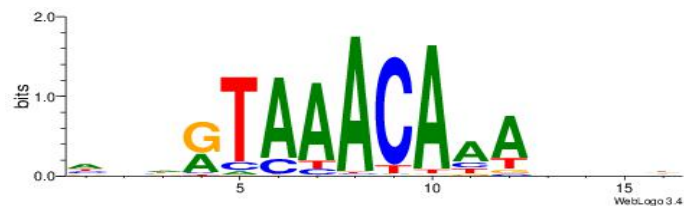Similarity score: 0.00656547

Alignment:
```
HDHRTAAACAAAHDDD
-DBGTAAATAHD----
```
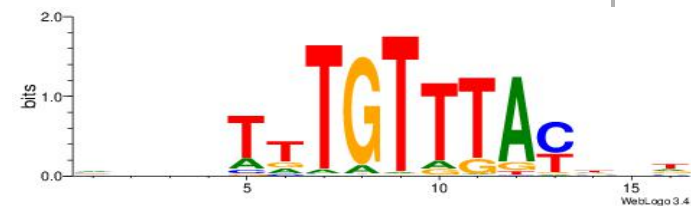
Original motif

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--
```
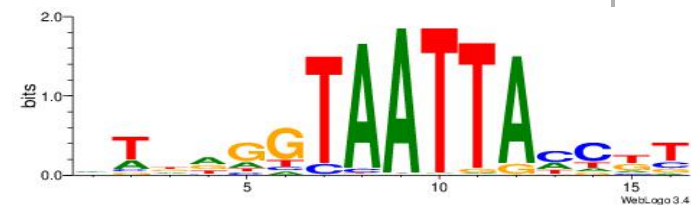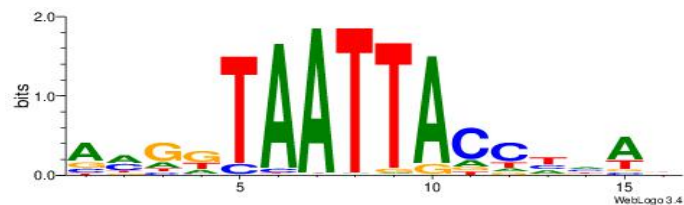
Original motif

Consensus sequence: AMGKTAATTACCHHAD

Reverse complement motif

Consensus sequence: DTHHGGTAATTAYCYT

Motif ID: UP00260

Motif name: Hoxc6

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Original Motif

Direction: Forward

Position number: 4

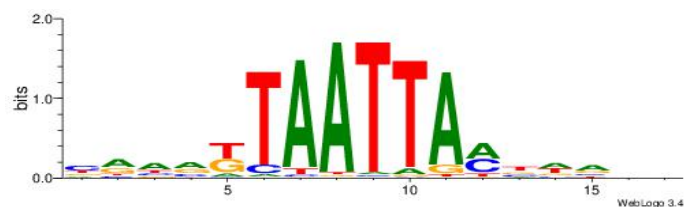Number of overlap: 11
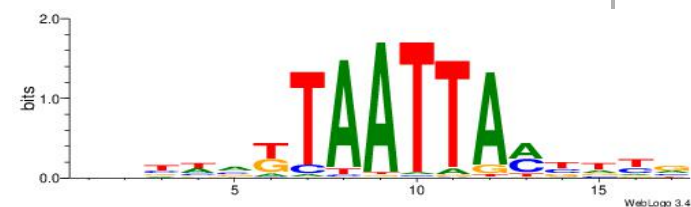
Similarity score: 0.0092156

Alignment:

```
BRHVKTAATTAMBDVVD
---DHTATTTACBD---
```

Original motif

Consensus sequence: BRHVKTAATTAMBDVVD

Reverse complement motif

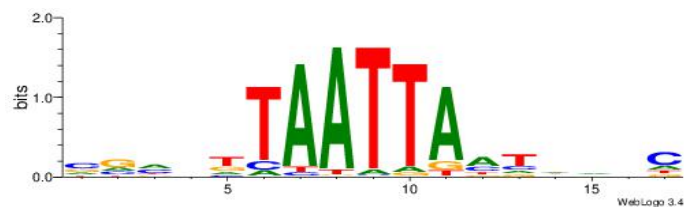Consensus sequence: DBBDVYTAATTARBHKB

Motif ID: [UP00164](UP00164)

Motif name: Hoxa7_2668.2

Species: Mus musculus

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: 0.00942246
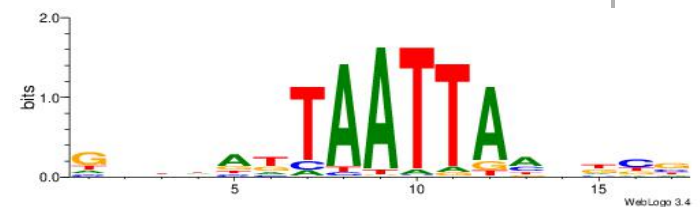
Alignment:

```
VVHDDTAATTAHTDDBC
---DHTATTTACBD---
```

Original motif

Consensus sequence: VVHDDTAATTAHTDDBC

Reverse complement motif

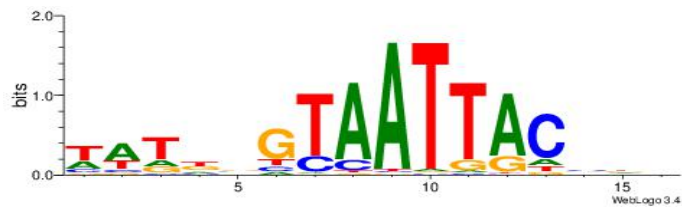Consensus sequence: GBDDAHTAATTADHHVV

Motif ID: [UP00259](UP00259)

Motif name: Hoxb6

Species: Mus musculus

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: 0.00949005

Alignment:

```
VDVGTAATTACBDAWW
-DBGTAAATAHD----
```

Original motif

Consensus sequence: WWTDBGTAATTACVDB

Reverse complement motif

Consensus sequence: VDVGTAATTACBDAWW

Motif ID: UP00254

Motif name: Pou2f1

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Reverse Complement

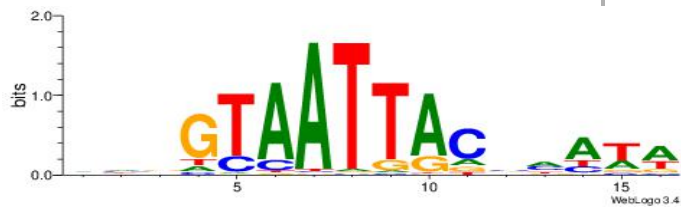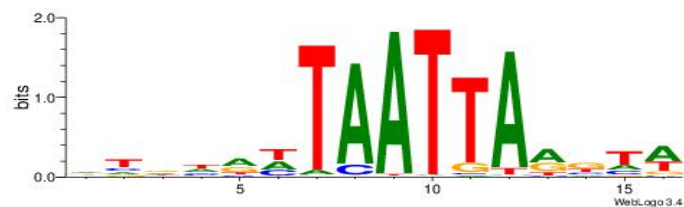Direction: Forward

Position number: 2

Number of overlap: 11
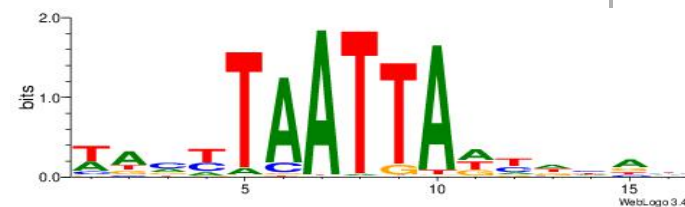
Similarity score: 0.00998499

Alignment:

```
WABKTAATTAHKHHHD
-DBGTAAATAHD----
```

Original motif

Reverse complement motif

Consensus sequence: DHDHRHTAATTARBTW
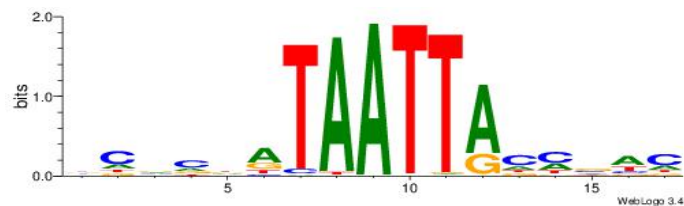

Consensus sequence: WABKTAATTAHKHHHD

Motif ID:	UP00110
Motif name:	Dlx4
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:	0.0107458

Alignment:
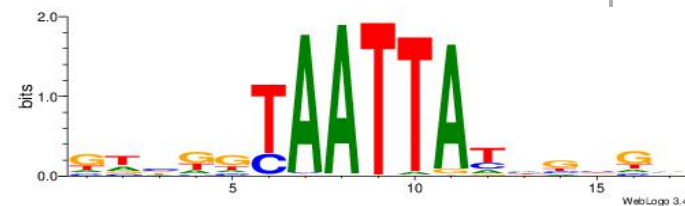```
GHVRGTAATTATDVVGV
--DBGTAAATAHD----
```

Original motif
Consensus sequence: BCVVDATAATTACMVHC



Reverse complement motif
Consensus sequence: GHVRGTAATTATDVVGV

## 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)

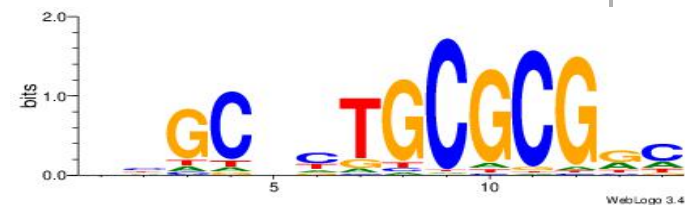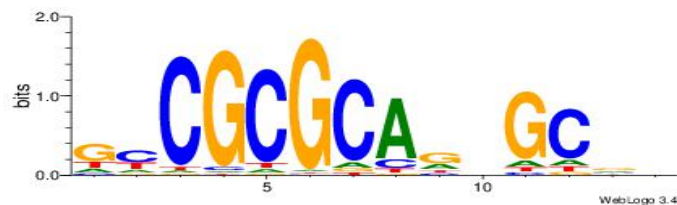| | |
|---|---|
| Motif ID: | UP00065 |
| Motif name: | Zfp161_secondary |
| Species: | Mus musculus |
| Matching format of first motif: | Original Motif |
| Matching format of second motif: | Original Motif |
| Direction: | Backward |
| Position number: | 9 |
| Number of overlap: | 6 |
| Similarity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

Alignment:

```
GYCGCGCARBGCVB
GTCGCG--------
```

Original motif

Consensus sequence: GYCGCGCARBGCVB

Reverse complement motif

Consensus sequence: VVGCVMTGCGCGKC

Motif ID: UP00060

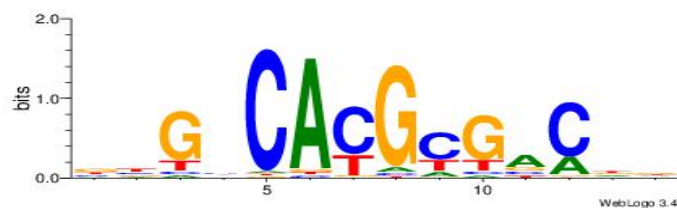Motif name: Max_secondary

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
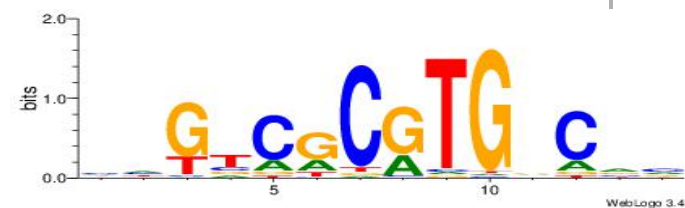
Similarity score: 0.00875457

Alignment:

```
BBGHCACGCGACDD
------CGCGAC--
```

Original motif
Consensus sequence: BBGHCACGCGACDD

Reverse complement motif
Consensus sequence: HDGTCGCGTGDCVB

Motif ID: UP00003
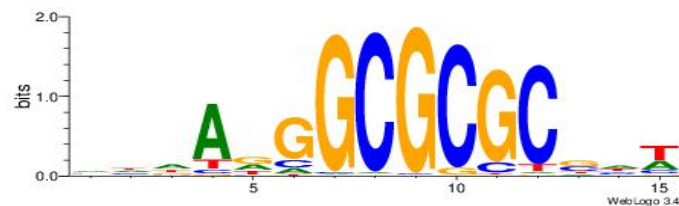
Motif name: E2F3_primary

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

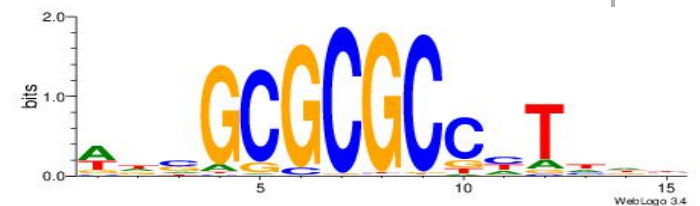Similarity score: 0.0102952

Alignment:

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

Original motif   Reverse complement motif

Consensus sequence: VHDADGGCGCGCSHW   Consensus sequence: WHSGCGCGCCHTDHB

Motif ID: UP00526
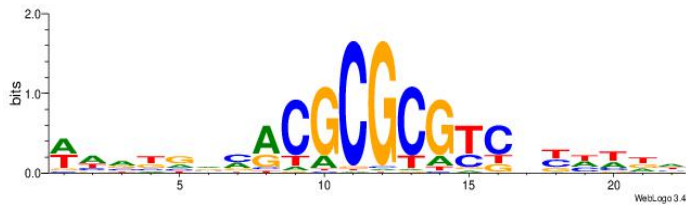
Motif name: Foxn1_primary

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Original Motif

Direction: Backward

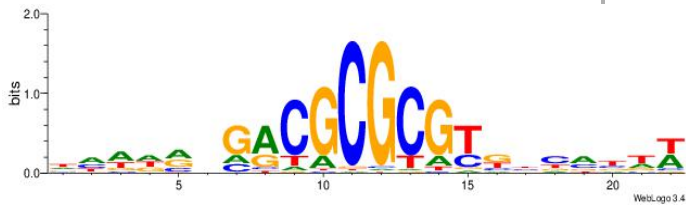Position number: 7

Number of overlap: 6

Similarity score: 0.0119605

Alignment:

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

Original motif

Consensus sequence: WHVBVVMACGCGCGTCDYHWDH

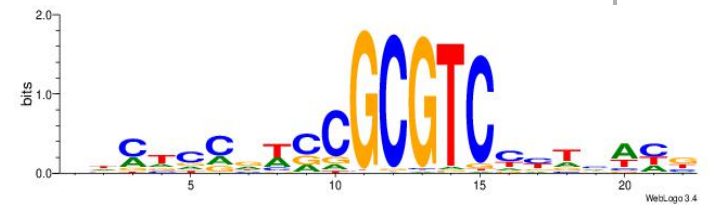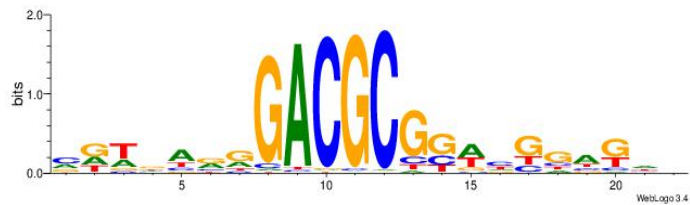Reverse complement motif

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

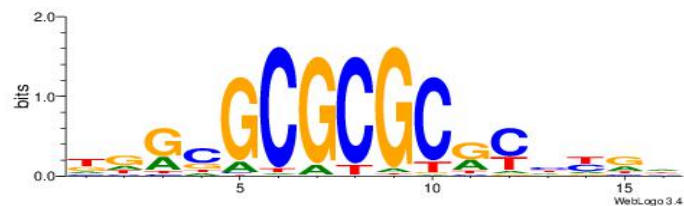Reverse complement motif

Consensus sequence: VHYTCCDWCCGCGTCMMTHWHV

Motif ID: [UP00065](UP00065)
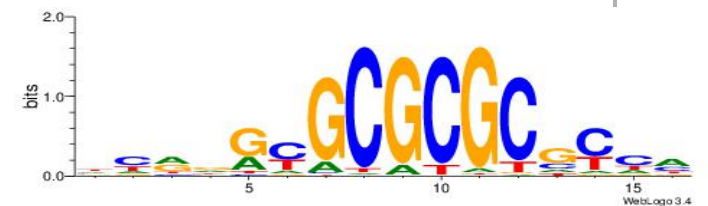
Motif name: Zfp161_primary

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Reverse Complement

Direction: Forward

Position number: 10

Number of overlap: 6

Similarity score: 0.0143989

Alignment:
```
DMMDGMGCGCGCGCHD
---------CGCGAC-
```

Original motif   Reverse complement motif

Consensus sequence: DDGCGCGCGCRCHYRD   Consensus sequence: DMMDGMGCGCGCGCHD
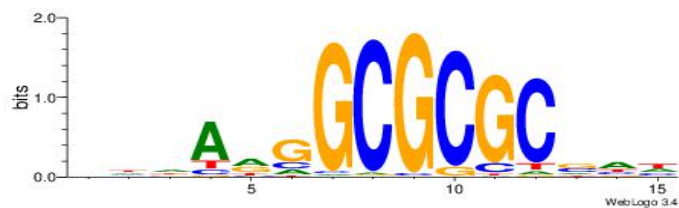
Motif ID: [UP00001](UP00001)

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: 5

Number of overlap: 6

Similarity score: 0.0147239
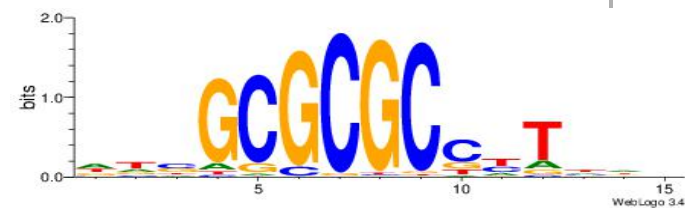
Alignment:

```
HHVGCGCGCCKTDHB
----CGCGAC-----
```

Original motif

Consensus sequence: VHDARGGCGCGCVHH

Reverse complement motif

Consensus sequence: HHVGCGCGCCKTDHB
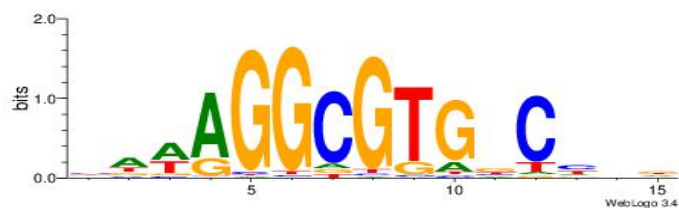

Motif ID: [UP00002](UP00002)

Motif name: Sp4_secondary

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Reverse Complement

Direction: Backward

Position number: 7

Number of overlap: 6

Similarity score: 0.0222574

Alignment:

```
HHDGBCACGCCTWDB
---GTCGCG------
```

Original motif   Reverse complement motif

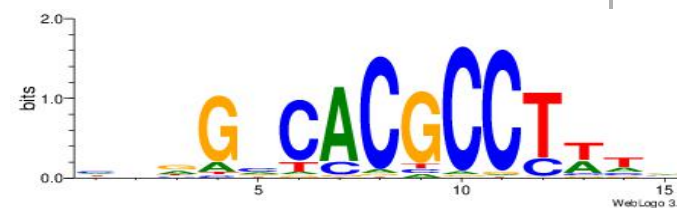Consensus sequence: BDWAGGCGTGBCHHD   Consensus sequence: HHDGBCACGCCTWDB

Motif ID: UP00049

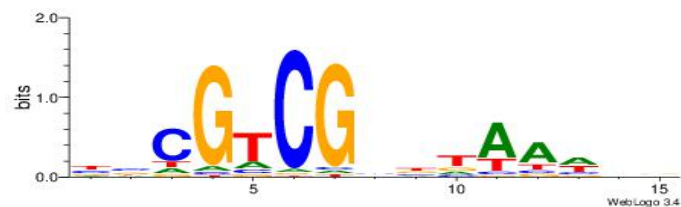Motif name: Sp100_secondary

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Original Motif

Direction: Backward

Position number: 7

Number of overlap: 6

Similarity score: 0.0300795

Alignment:

```
BBCGTCGHBTAAWDB
---GTCGCG------
```

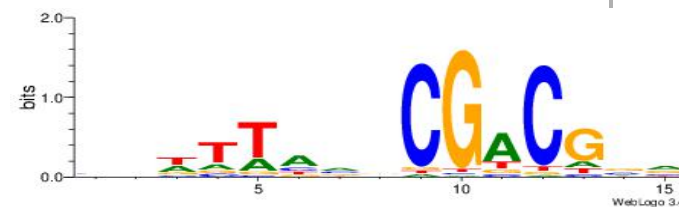Original motif   Reverse complement motif

Consensus sequence: BBCGTCGHBTAAWDB

Consensus sequence: BDWTTAVDCGACGBV

Motif ID: UP00000

Motif name: Smad3_secondary

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Reverse Complement

Direction: Forward

Position number: 5

Number of overlap: 6

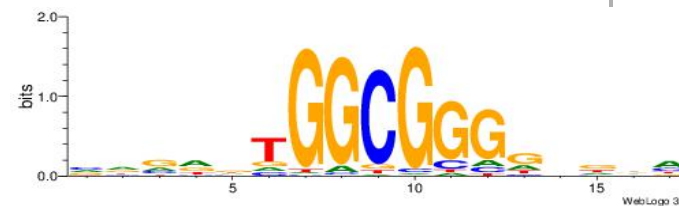Similarity score: 0.0317992

Alignment:

```
BHBHDTGGCGGGGBDHD
----GTCGCG-------
```

Original motif
Consensus sequence: DHHBCCCGCCAHHBHB
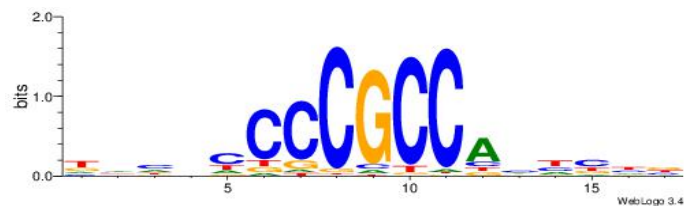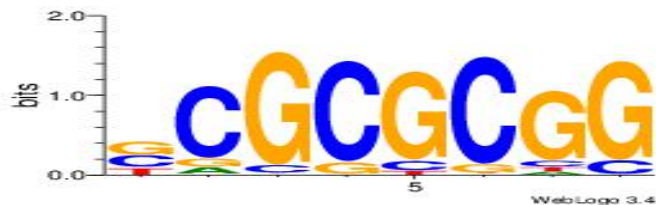

Reverse complement motif
Consensus sequence: BHBHDTGGCGGGGBDHD

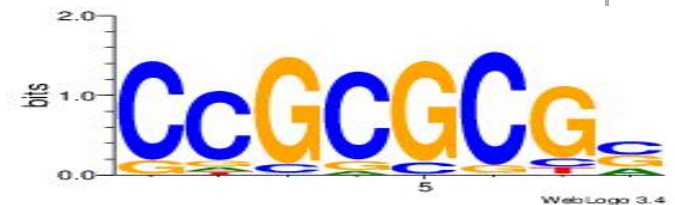## Dataset #: 5   Motif ID: 47   Motif name: TFW2

Original motif

Consensus sequence: SCGCGCGG

Reverse complement motif

Consensus sequence: CCGCGCGS

Best Matches for Motif ID 47 (Highest to Lowest)

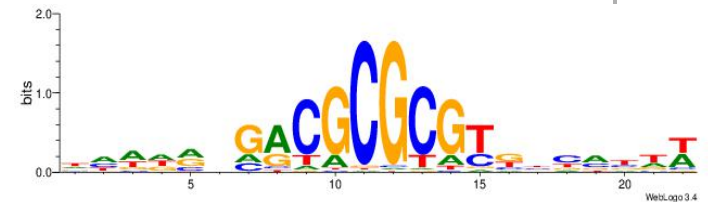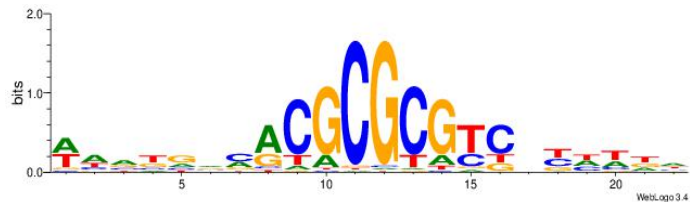|	
Motif ID:	UP00526
Motif name:	Foxn1_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	8
Number of overlap:	8
Similarity score:	0

Alignment:

```
HDWHMHGACGCGCGTRBVVBHW
-------CCGCGCGS-------
```

Original motif

Consensus sequence: WHVBVVMACGCGCGTCDYHWDH
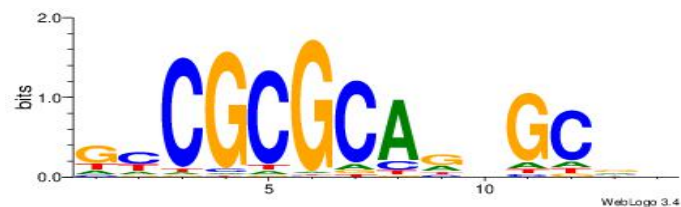
Reverse complement motif

Consensus sequence: HDWHMHGACGCGCGTRBVVBHW

Motif ID: UP00065
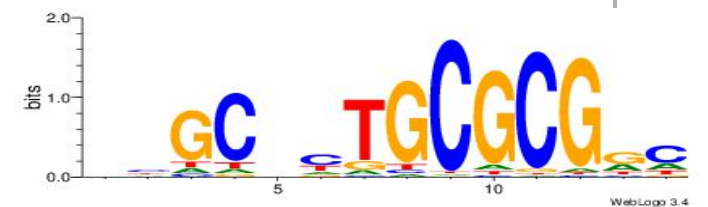
Motif name: Zfp161_secondary
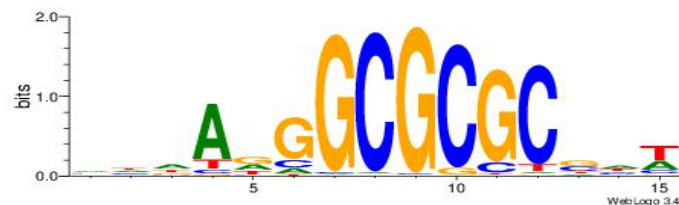
Species: Mus musculus

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   Reverse complement motif

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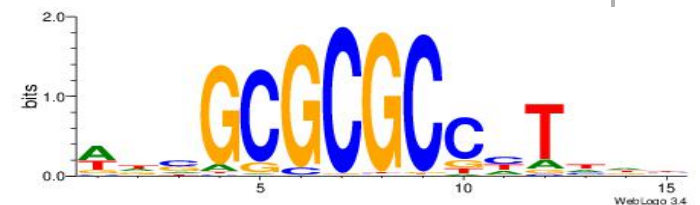
Original motif

Consensus sequence: VHDADGGCGCGCSHW

Reverse complement motif

Consensus sequence: WHSGCGCGCCHTDHB

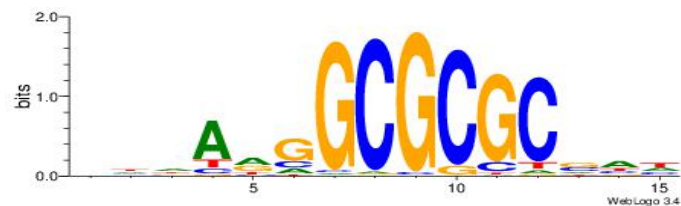|	
Motif ID:	UP00001
Motif name:	E2F2_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	8

Similarity score: 0.00399923

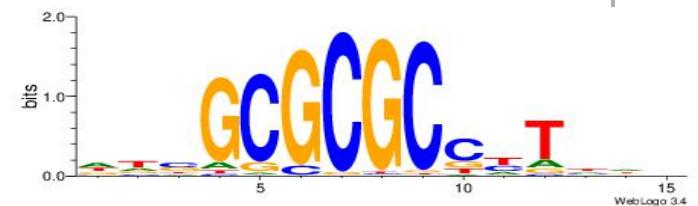Alignment:
```
HHVGCGCGCCKTDHB
-CCGCGCGS------
```

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----
```
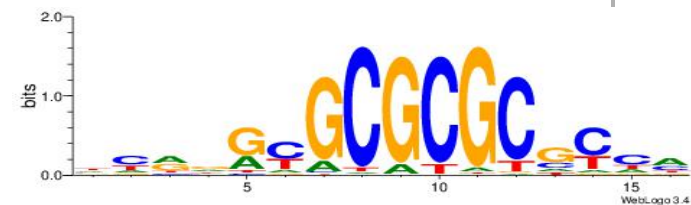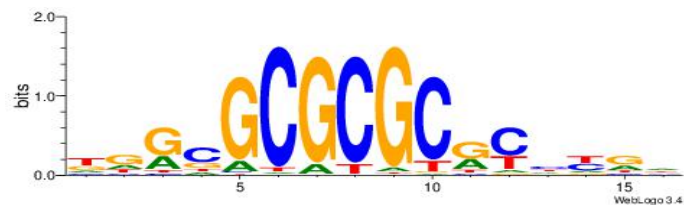
Original motif
Consensus sequence: DDGCGCGCGCRCHYRD

Reverse complement motif
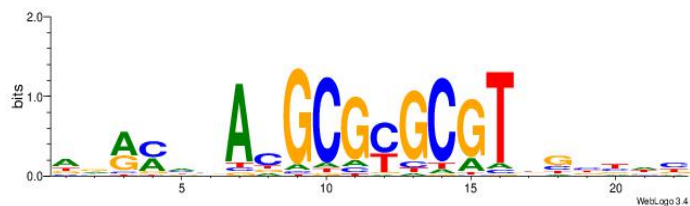Consensus sequence: DMMDGMGCGCGCGCHD

Motif ID:	[UP00526](UP00526)
Motif name:	Foxn1_secondary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	7
Number of overlap:	8
Similarity score:	0.0149577

Alignment:

```
BDVBCDACGCKCGCGTBHRKHD
------CCGCGCGS--------
```
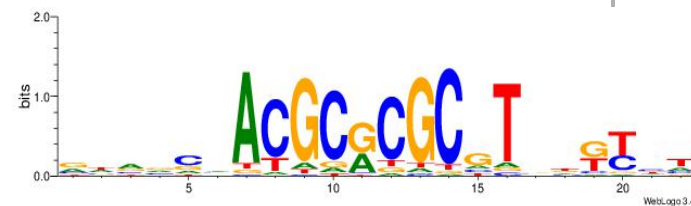
Original motif
Consensus sequence: DDRMHBACGCGYGCGTDGBBDB

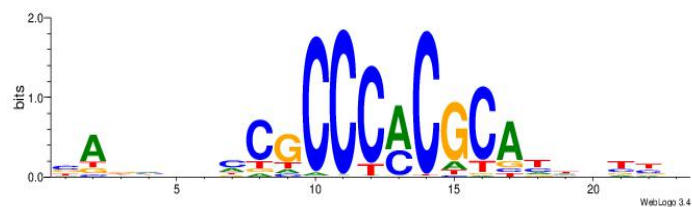Reverse complement motif
Consensus sequence: BDVBCDACGCKCGCGTBHRKHD

Motif ID: UP00400

Motif name: Zif268

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: 8

Similarity score: 0.0194485

Alignment:

```
VVVDHHTGCGYGGGCGDHVHHTB
-----SCGCGCGG----------
```
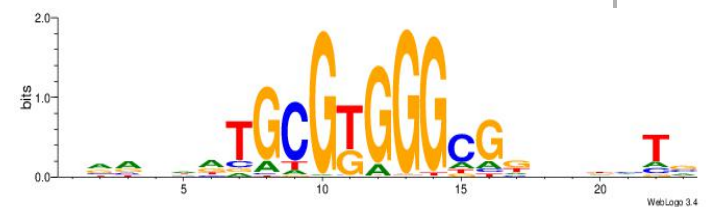
Original motif

Consensus sequence: BADHBDHCGCCCMCGCAHHDBBV

Reverse complement motif

Consensus sequence: VVVDHHTGCGYGGGCGDHVHHTB

Motif ID: UP00022

Motif name: Zfp740_secondary

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Original Motif

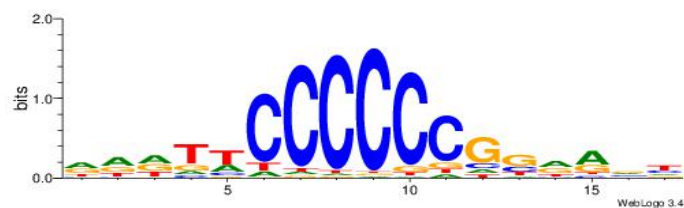Direction: Forward

Position number: 6

Number of overlap: 8

Similarity score: 0.0230299

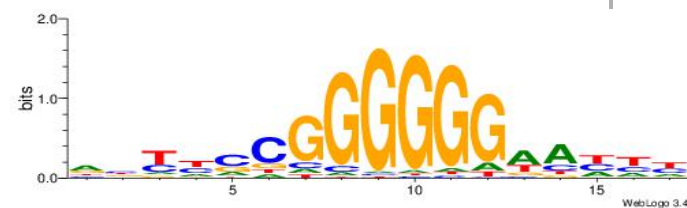Alignment:

DDDTWCCCCCCGGDRVH

-----CCGCGCGS----

Original motif   Reverse complement motif

Consensus sequence: DDDTWCCCCCCGGDRVH   Consensus sequence: HVKDCCGGGGGGGWADDD

Motif ID: UP00007

Motif name: Egr1_primary

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Original Motif

Direction: Forward

Position number: 6

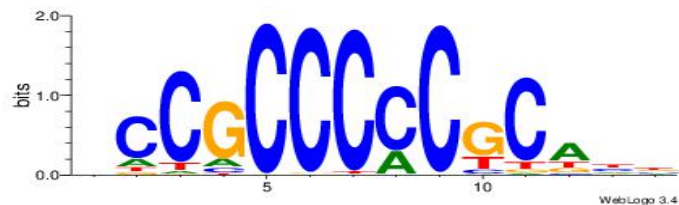Number of overlap: 8

Similarity score: 0.0247841

Alignment:

HCCGCCCCCGCAHB

-----CCGCGCGS-
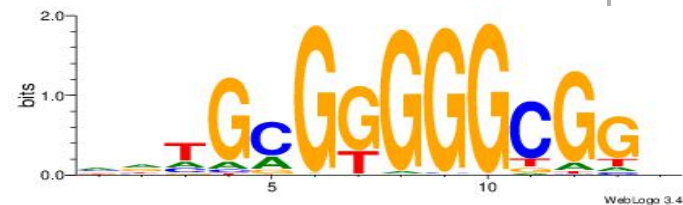

Original motif   Reverse complement motif

Consensus sequence: HCCGCCCCCGCAHB

Consensus sequence: VHTGCGGGGGCGGH

Motif ID: UP00007
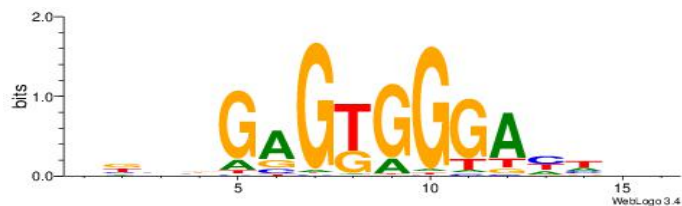
Motif name: Egr1_secondary

Species: Mus musculus

Matching format of first motif: Reverse Complement

Matching format of second motif: Reverse Complement

Direction: Forward

Position number: 7

Number of overlap: 8
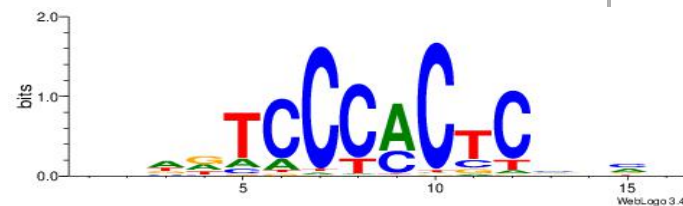
Similarity score: 0.0249557

Alignment:

```
BHHDTCCCACTCBDBV
------CCGCGCGS--
```

Original motif

Consensus sequence: BBHBGAGTGGGAHHDB

Reverse complement motif

Consensus sequence: BHHDTCCCACTCBDBV

Results created by MOTIFSIM on 11-20-2016 22:10:51
Runtime: 822.546 seconds

MOTIFSIM is written by Ngoc Tam L. Tran
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