



# MOTIFSIM - MOTIF SIMilarity Detection Tool

Version 2.2

## INPUT

### Input Parameters

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

### Input files and motif counts

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

## RESULTS

### 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: GCCCGGCC



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

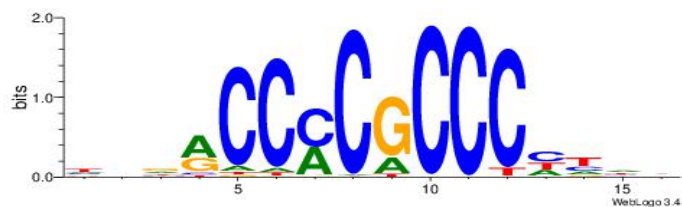
Motif ID:	<a href="#">UP00093</a>
Motif name:	Klf7_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	6
Number of overlap:	8
Similarity score:	0

Alignment:

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HBDRCCMCGCCCHHHD
---GCCCGGCC-----
```

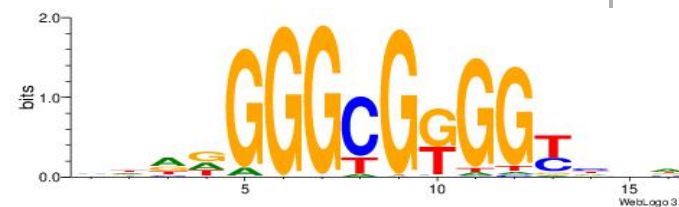
Original motif

Consensus sequence: HBDRCMCGCCCHHHD



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

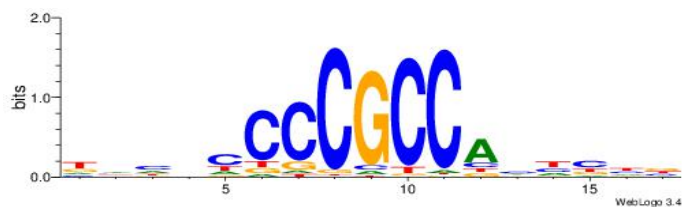
Alignment:

BHBHDTGGCGGGBDHD

-----GGCGGGGC---

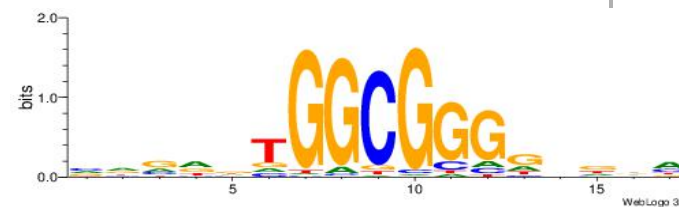
Original motif

Consensus sequence: DHHBCCCCGCCAHHBHB



Reverse complement motif

Consensus sequence: BHBHDTGGCGGGBDHD



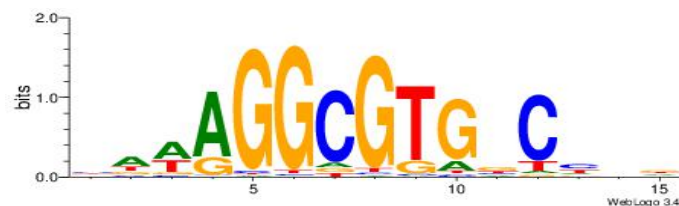
Motif ID: [UP00002](#)  
Motif name: Sp4\_secondary  
Species: Mus musculus  
Matching format of first motif: Original Motif  
Matching format of second motif: Original Motif  
Direction: Forward  
Position number: 5  
Number of overlap: 8  
Similarity score: 0.0145996

Alignment:

BDWAGGCGTGBCHHD  
----GGCGGGGC---

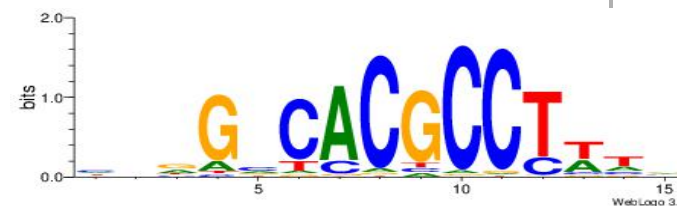
Original motif

Consensus sequence: BDWAGGCGTGBCHHD



Reverse complement motif

Consensus sequence: HHDGBCACGCCTWDB



Motif ID: [UP00002](#)  
Motif name: Sp4\_primary  
Species: Mus musculus  
Matching format of first motif: Reverse Complement  
Matching format of second motif: Original Motif  
Direction: Forward

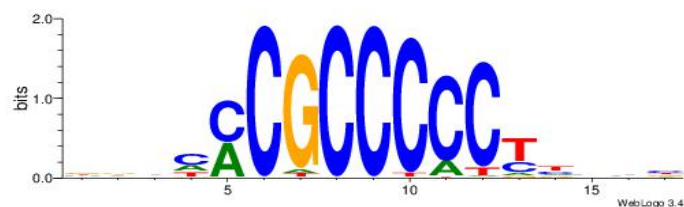
Position number: 2  
Number of overlap: 8  
Similarity score: 0.0233506

Alignment:

BDHHMCGCCCCCTHVBB  
-GCCCCGCC-----

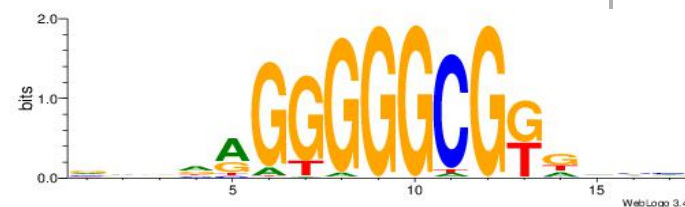
Original motif

Consensus sequence: BDHHMCGCCCCCTHVBB



Reverse complement motif

Consensus sequence: BVVHAGGGGGCGRDHHB



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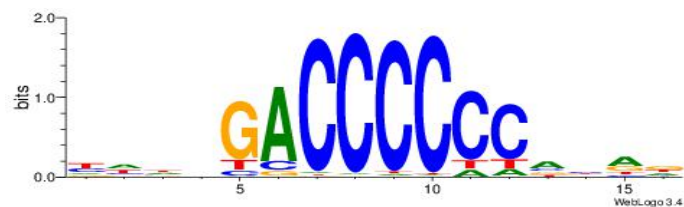
Motif ID: [UP00024](#)  
Motif name: Glis2\_primary  
Species: Mus musculus  
Matching format of first motif: Reverse Complement  
Matching format of second motif: Original Motif  
Direction: Forward  
Position number: 5  
Number of overlap: 8  
Similarity score: 0.0291232

Alignment:

HHHVGACCCCCCVBRD  
----GCCCCGCC----

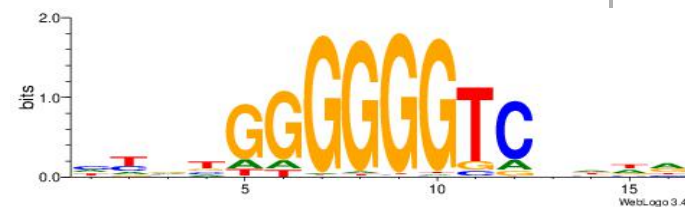
Original motif

Consensus sequence: HHHVGACCCCCCVBRD



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

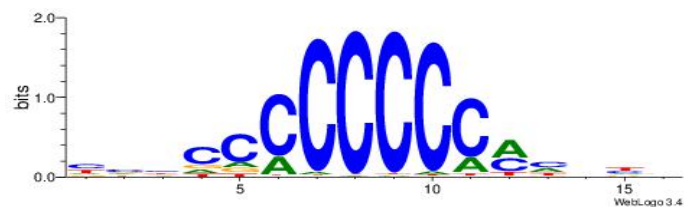
Alignment:

BHHDYGGGGGGGGBVD

-----GCCGGGGC---

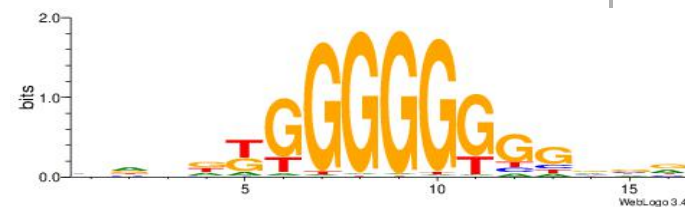
Original motif

Consensus sequence: HVBCCCCCCCCMHHHB



Reverse complement motif

Consensus sequence: BHHDYGGGGGGGGBVD



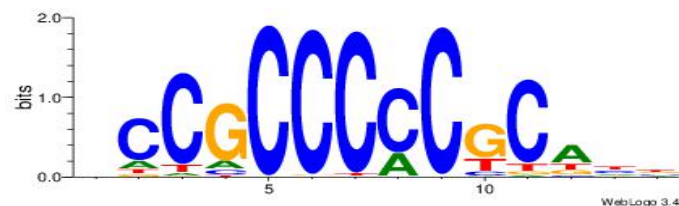
Motif ID: [UP00007](#)  
Motif name: Egr1\_primary  
Species: Mus musculus  
Matching format of first motif: Original Motif  
Matching format of second motif: Reverse Complement  
Direction: Backward  
Position number: 4  
Number of overlap: 8  
Similarity score: 0.0361147

Alignment:

VHTGCGGGGGCGGH  
---GGCGGGGC---

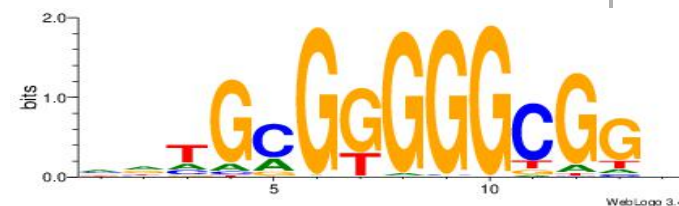
Original motif

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

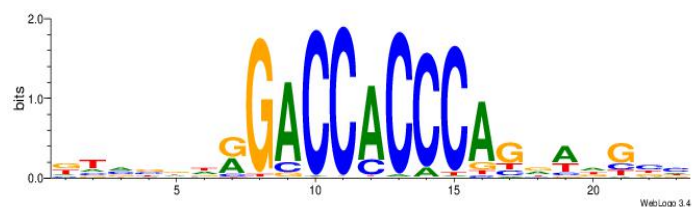
Position number: 8  
Number of overlap: 8  
Similarity score: 0.0374146

Alignment:

DTVBD DRGACCACCCAGDWDGBH  
-----GCCCGCC-----

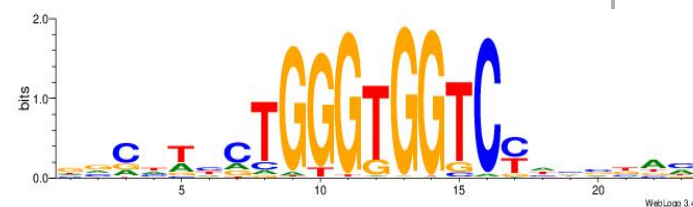
Original motif

Consensus sequence: DTVBD DRGACCACCCAGDWDGBH



Reverse complement motif

Consensus sequence: DBCDWHCTGGGTGGTCMDHBBAH



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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

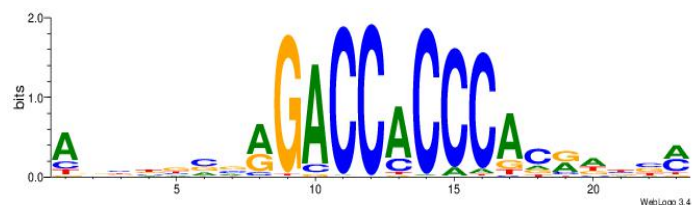
Alignment:

ABBBBVVRGACCACCCACRDBBM  
-----GCCCGCC-----



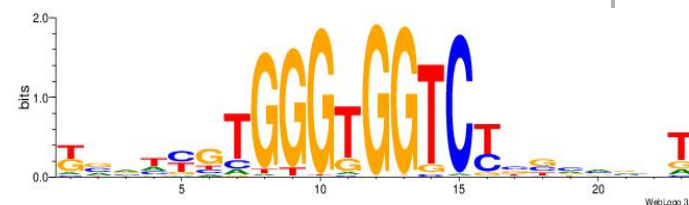
### Original motif

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

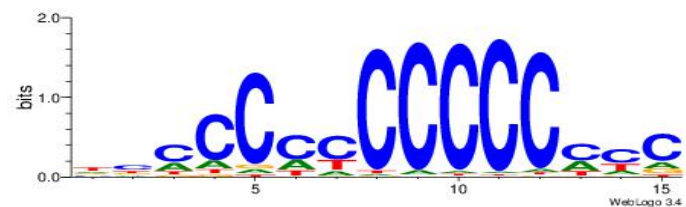
### Alignment:

GKRGGGGGGGGGGBD

---GGCGGGGC----

### Original motif

Consensus sequence: DBCCCCCCCCCMYC



### Reverse complement motif

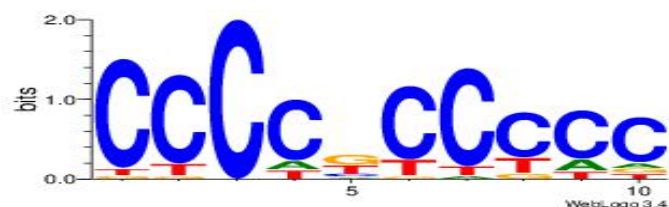
Consensus sequence: GKRGGGGGGGGGGBD



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

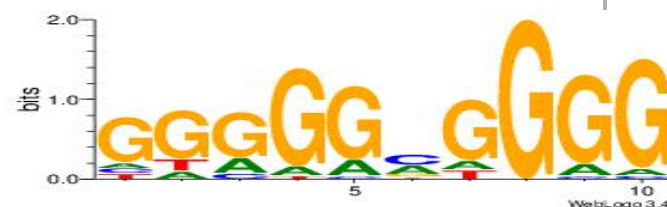
Original motif

Consensus sequence: CCCCKCCCCC



Reverse complement motif

Consensus sequence: GGGGGYGGGG



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

Motif ID:	<a href="#">UP00021</a>
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:

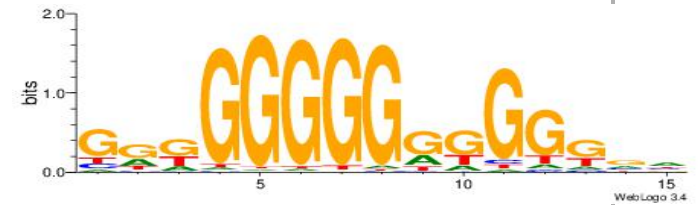
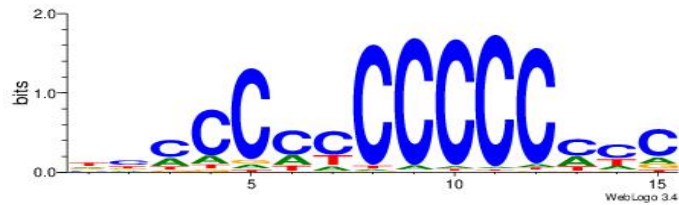
```
DBCCCCCCCCCMYC
--CCCCKCCCCC---
```

Original motif

Consensus sequence: DBCCCCCCCCCMYC

Reverse complement motif

Consensus sequence: GKRGGGGGGGGGGBD

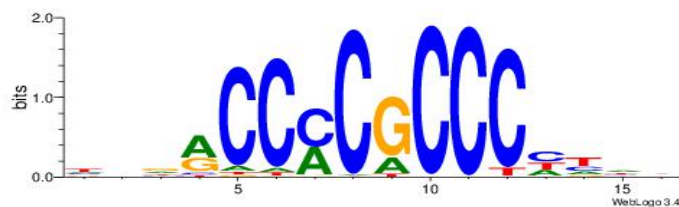


Motif ID: [UP00093](#)  
 Motif name: Klf7\_primary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Backward  
 Position number: 3  
 Number of overlap: 10  
 Similarity score: 0.0303207

Alignment:  
 HBDRCMCGCCCHHD  
 ----CCCCKCCCC--

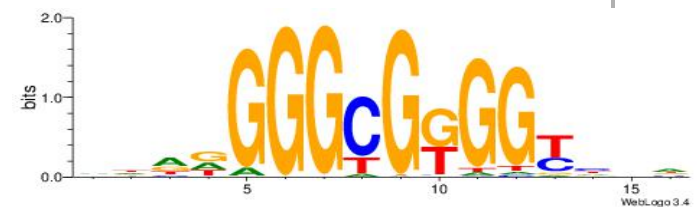
Original motif

Consensus sequence: HBDRCMCGCCCHHD



Reverse complement motif

Consensus sequence: DHHDGGGCGRGGKHBH



Motif ID: [UP00033](#)

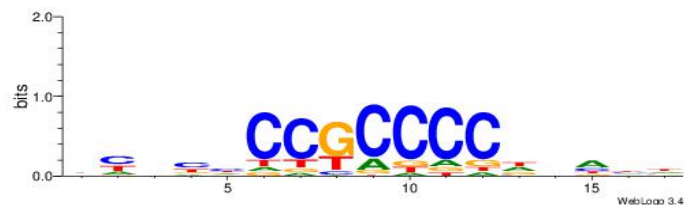
Motif name: Zfp410\_secondary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Forward  
 Position number: 5  
 Number of overlap: 10  
 Similarity score: 0.0323007

Alignment:

HHHHDGGGGCGGDBHDV  
 ----GGGGGYGGG---

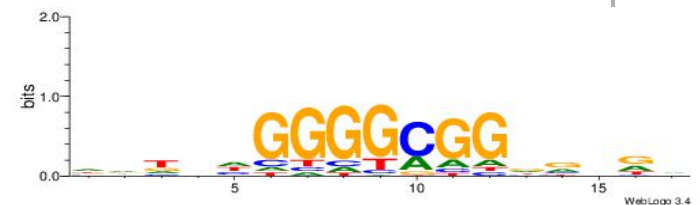
Original motif

Consensus sequence: BHHBHCCGCCCCDHHHH



Reverse complement motif

Consensus sequence: HHHHDGGGGCGGDBHDV




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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

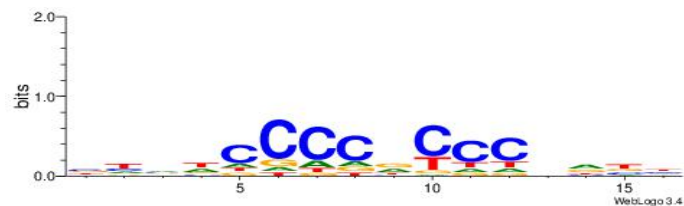
Alignment:

HVDVGGGHGGGGDBHB

--GGGGGYGGGG----

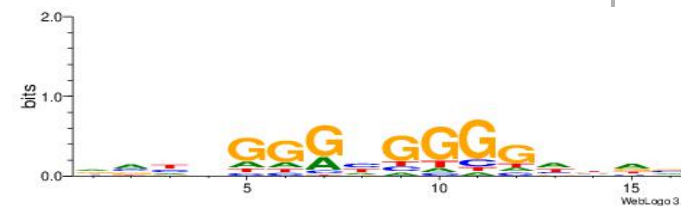
Original motif

Consensus sequence: BHVDCCCCDCCCBDBH



Reverse complement motif

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

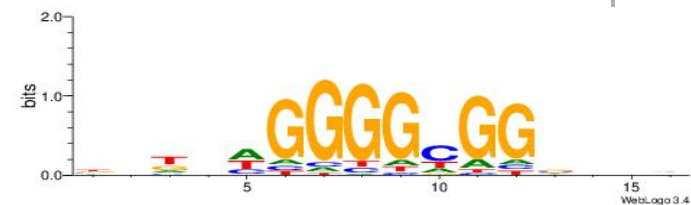
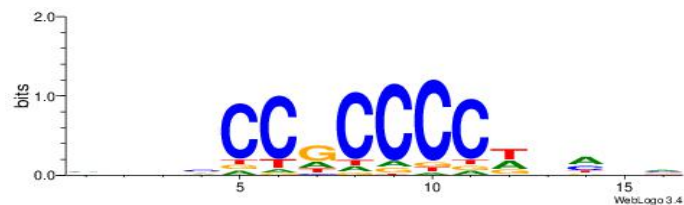
----GGGGGYGGGG--

Original motif

Consensus sequence: HBBCCGCCCCWHHHV

Reverse complement motif

Consensus sequence: BHHHWGGGGCGGBBVH



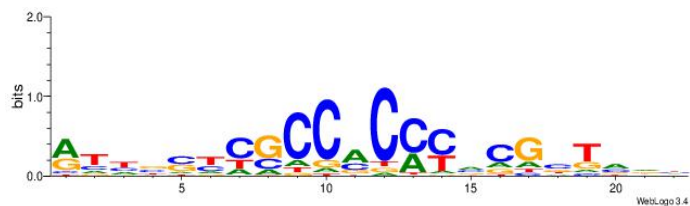
Motif ID: [UP00539](#)  
 Motif name: Gli2\_v016060\_secondary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Forward  
 Position number: 7  
 Number of overlap: 10  
 Similarity score: 0.0390437

#### Alignment:

HDBABCGBKRGYGGCGMSBHAK  
 -----GGGGGYGGGG-----

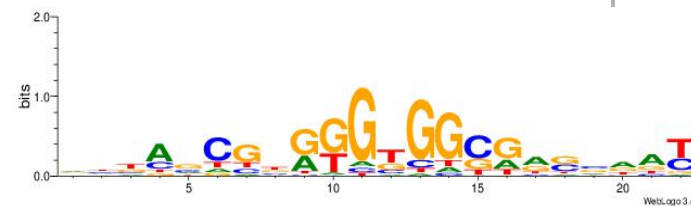
#### Original motif

Consensus sequence: RTHBSYCGCCMCMYVCGBTVDH



#### Reverse complement motif

Consensus sequence: HDBABCGBKRGYGGCGMSBHAK



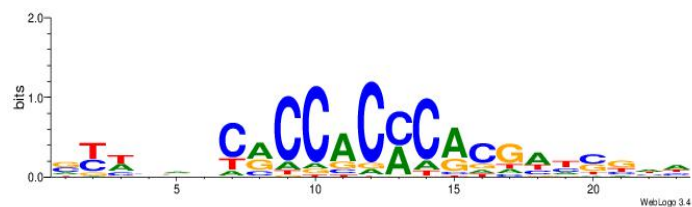
Motif ID: [UP00540](#)  
 Motif name: Gli3\_v016060\_secondary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Backward  
 Position number: 7  
 Number of overlap: 10  
 Similarity score: 0.0393358

Alignment:

HHBSHTCGTGRGTGGKGDBVWMV  
 -----GGGGGYGGGG-----

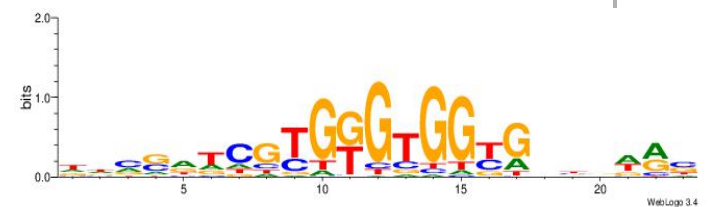
Original motif

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

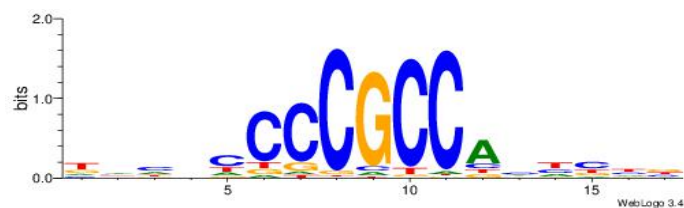
Number of overlap: 10  
Similarity score: 0.0413863

Alignment:

DHHBCCCCGCCAHHBHB  
----CCCCKCCCC--

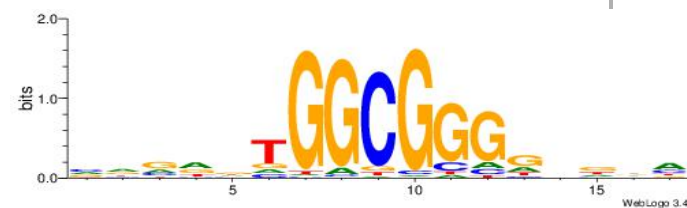
Original motif

Consensus sequence: DHHBCCCCGCCAHHBHB



Reverse complement motif

Consensus sequence: BHBHDTGGCGGGGBDHD



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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:

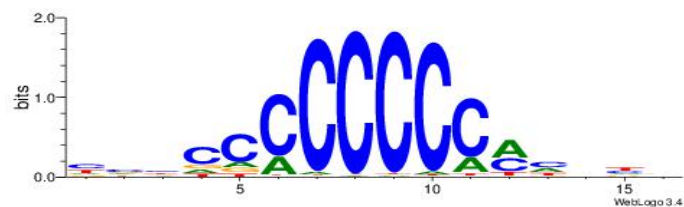
HVBCCCCCCCCMHHHB  
---CCCCKCCCC---

Original motif

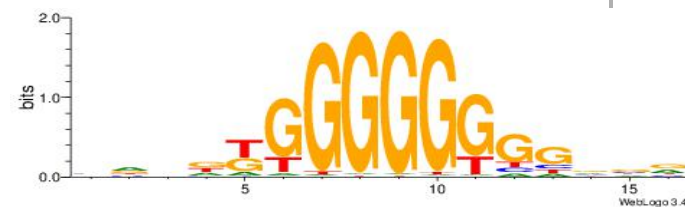
Reverse complement motif



Consensus sequence: HVBCCCCCCCCMHHHB



Consensus sequence: BHHDYGGGGGGGGGBVD



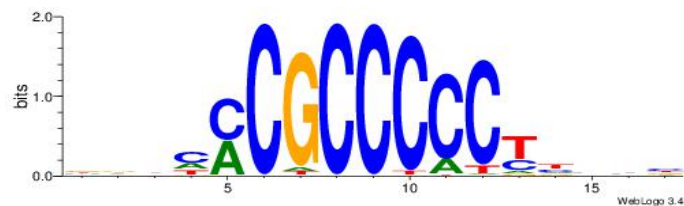
Motif ID: [UP00002](#)  
 Motif name: Sp4\_primary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Forward  
 Position number: 3  
 Number of overlap: 10  
 Similarity score: 0.0420708

Alignment:

BDHHMCGCCCCCTHVBB  
 --CCCCKCCCC-----

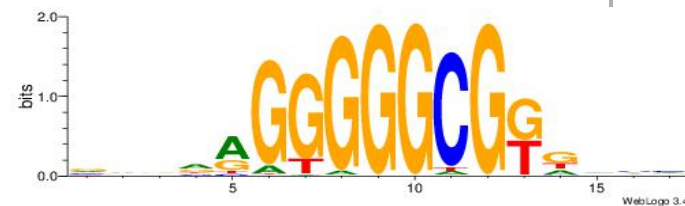
Original motif

Consensus sequence: BDHHMCGCCCCCTHVBB



Reverse complement motif

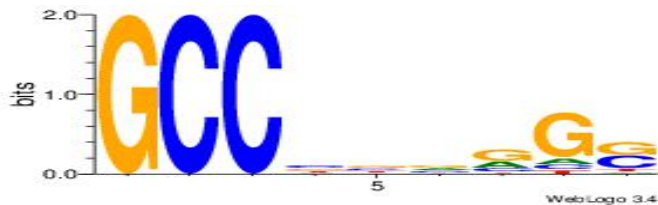
Consensus sequence: BVVHAGGGGGGCGRDHHB



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

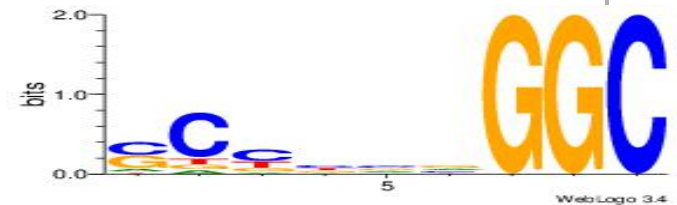
Original motif

Consensus sequence: GCCBBVRGS



Reverse complement motif

Consensus sequence: SCMVBGGC



### Best Matches for Motif ID 25 (Highest to Lowest)

Motif ID:	<a href="#">UP00010</a>
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

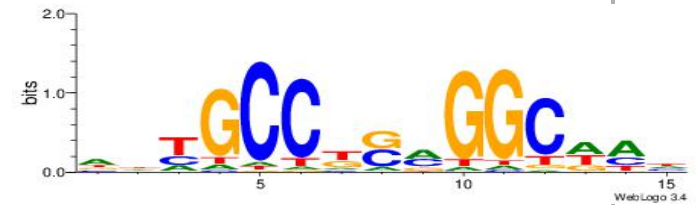
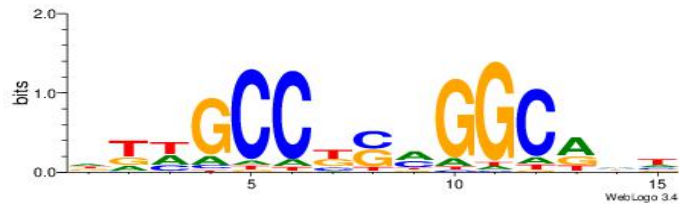
---GCCBBVRGS---

Original motif

Consensus sequence: DTWGCKSMGGCRHH

Reverse complement motif

Consensus sequence: HHKGCCYSRGGCWAD



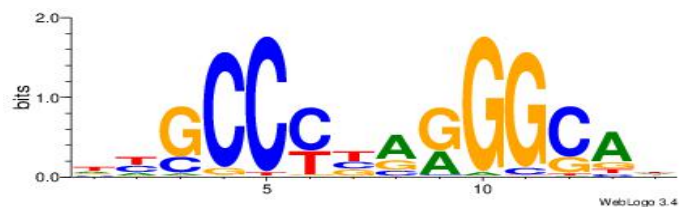
Motif ID: [UP00010](#)  
 Motif name: Tcfap2b\_primary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Forward  
 Position number: 3  
 Number of overlap: 9  
 Similarity score: 0.0150447

#### Alignment:

DYGCCYBARGGCAH  
 --GCCBBVRGS---

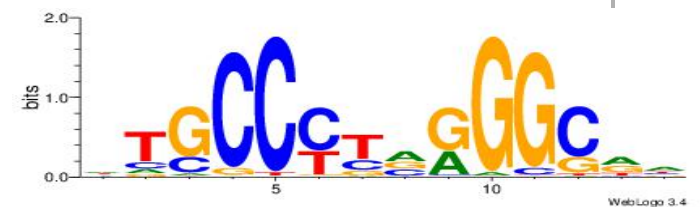
#### Original motif

Consensus sequence: DYGCCYBARGGCAH



#### Reverse complement motif

Consensus sequence: HTGCCMTVKGGCMD



Motif ID: [UP00005](#)

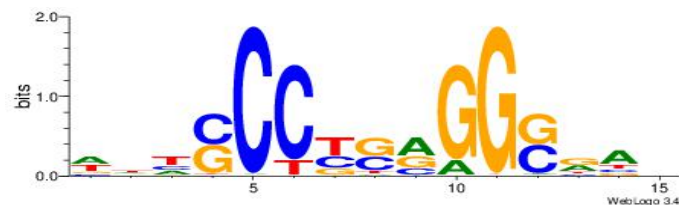
Motif name: Tcfap2a\_primary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Forward  
 Position number: 4  
 Number of overlap: 9  
 Similarity score: 0.0151527

Alignment:

WDHSCCYSRGGSRAD  
 ---GCCBBVRGS---

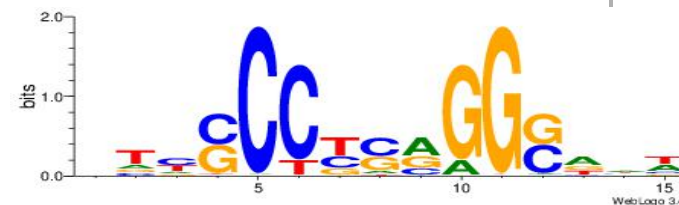
Original motif

Consensus sequence: WDHSCCYSRGGSRAD



Reverse complement motif

Consensus sequence: DTMSCCKSMGGSHDW




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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---

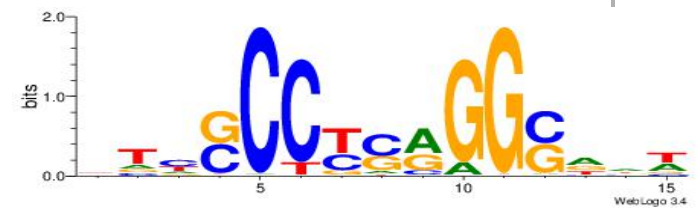
Original motif

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

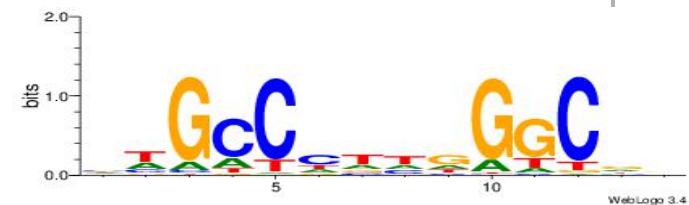
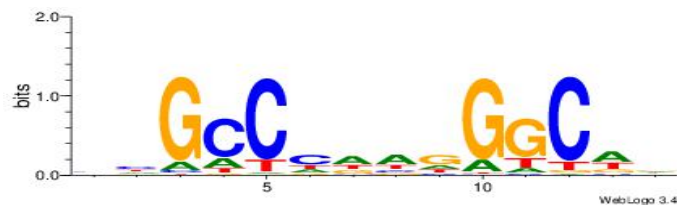
--GCCBBVRGS---

Original motif

Consensus sequence: BHGCCCDAGGGCWD

Reverse complement motif

Consensus sequence: HWGCCCTDGGGCDB



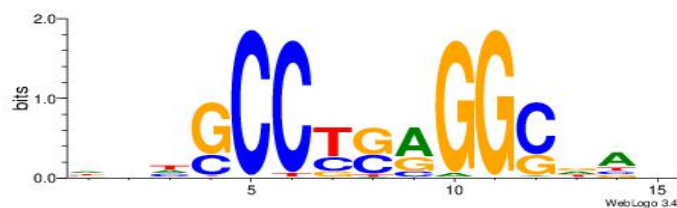
Motif ID: [UP00028](#)  
 Motif name: Tcfap2e\_primary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Backward  
 Position number: 4  
 Number of overlap: 9  
 Similarity score: 0.0198854

#### Alignment:

HHHGCCTSAGGCDAD  
 ---GCCBBVRGS---

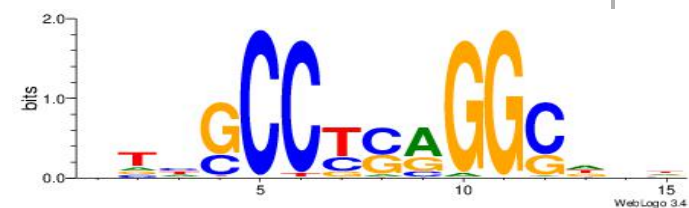
#### Original motif

Consensus sequence: HHHGCCTSAGGCDAD



#### Reverse complement motif

Consensus sequence: DTHGCCTSAGGCHHH



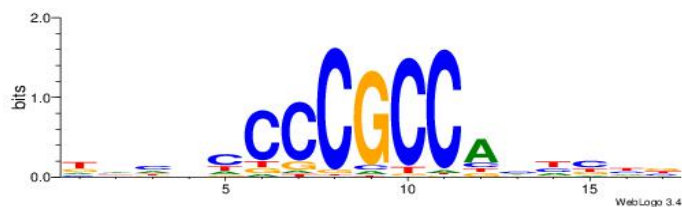
Motif ID: [UP00000](#)  
 Motif name: Smad3\_secondary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Backward  
 Position number: 9  
 Number of overlap: 9  
 Similarity score: 0.0203681

Alignment:

BHBHDTGGCGGGGBDHD  
 SCMVBBGGC-----

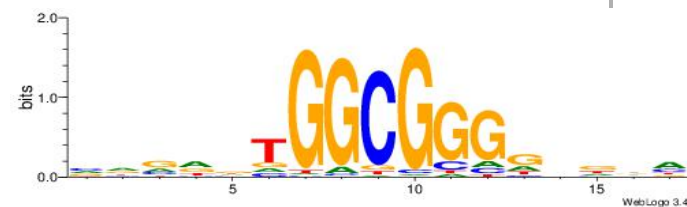
Original motif

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

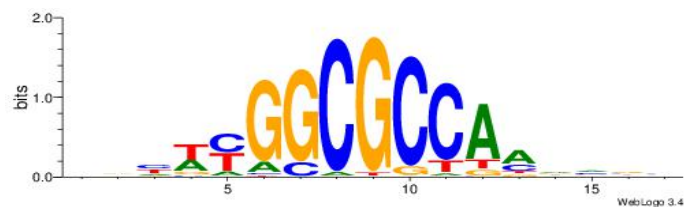
Number of overlap: 9  
Similarity score: 0.0217064

Alignment:

BBBDYTGGCGCCKWDBD  
SCMVBBGGC-----

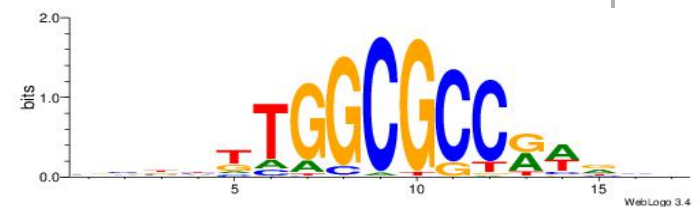
Original motif

Consensus sequence: HBHWYGGCGCCAMDVBB



Reverse complement motif

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:

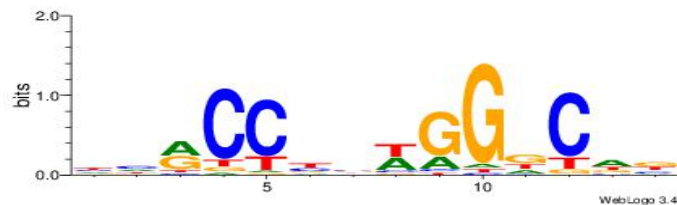
HHRCCBBWGGDCDB  
--GCCBBVRGS---

Original motif

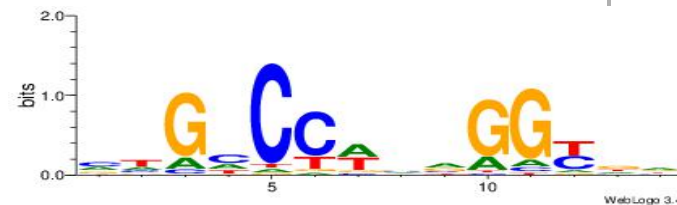
Reverse complement motif



Consensus sequence: HHRCCBBWGGDCDB



Consensus sequence: BDGHCCWBVGGKDH



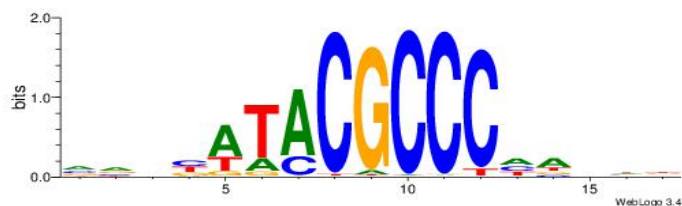
Motif ID: [UP00093](#)  
Motif name: Klf7\_secondary  
Species: Mus musculus  
Matching format of first motif: Original Motif  
Matching format of second motif: Original Motif  
Direction: Backward  
Position number: 1  
Number of overlap: 9  
Similarity score: 0.026642

Alignment:

VVDBATACGCCCHAHHD  
-----GCCBBVRGS

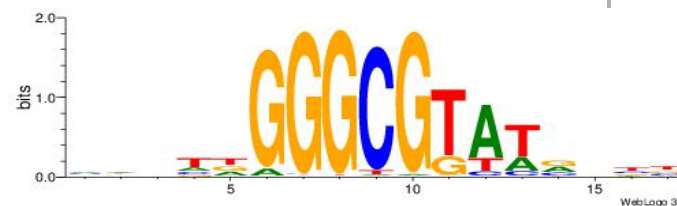
Original motif

Consensus sequence: VVDBATACGCCCHAHHD



Reverse complement motif

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

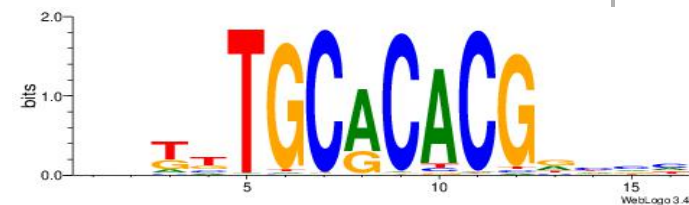
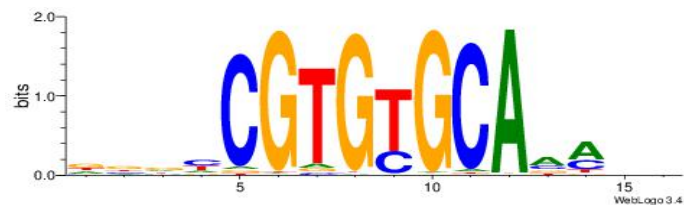
-----VCACGTBV-

Original motif

Consensus sequence: DBDHCGTGTGCAAMDH

Reverse complement motif

Consensus sequence: HDYTTGCACACGDHBH

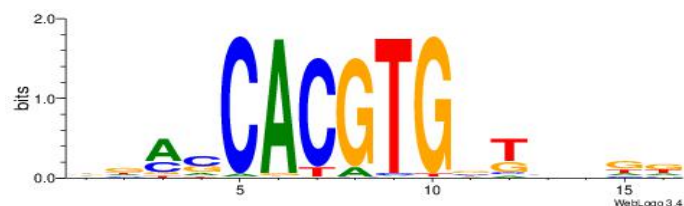


Motif ID: [UP00060](#)  
 Motif name: Max\_primary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Backward  
 Position number: 4  
 Number of overlap: 8  
 Similarity score: 0.000574345

Alignment:  
 HHVBABCACGTGSTHD  
 -----VCACGTBV---

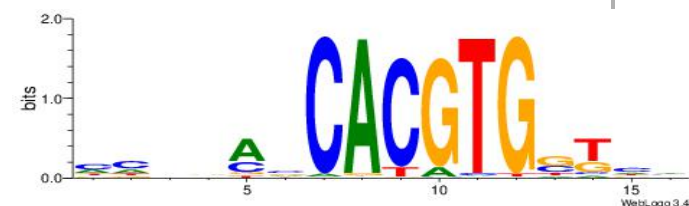
Original motif

Consensus sequence: DDASCACGTGBTBVDD



Reverse complement motif

Consensus sequence: HHVBABCACGTGSTHD



Motif ID: [UP00050](#)

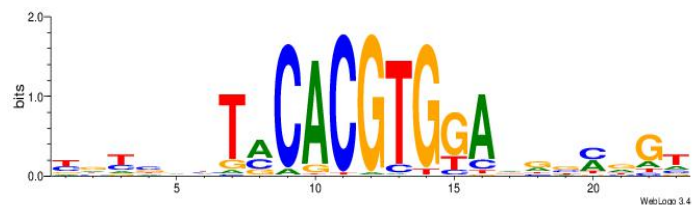
Motif name: Bhlhb2\_secondary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Backward  
 Position number: 9  
 Number of overlap: 8  
 Similarity score: 0.00642455

Alignment:

YDYBDHTMCACGTGGADDBMDGT  
 -----VBACGTGV-----

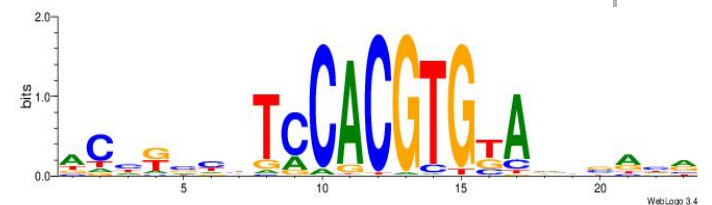
Original motif

Consensus sequence: YDYBDHTMCACGTGGADDBMDGT



Reverse complement motif

Consensus sequence: ACHRBHDTCCACGTGYAHHBMHM




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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

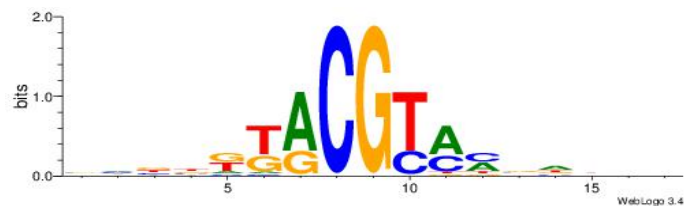
Alignment:

BVVDVRYACGTRYVBHB

-----VBACGTGV-----

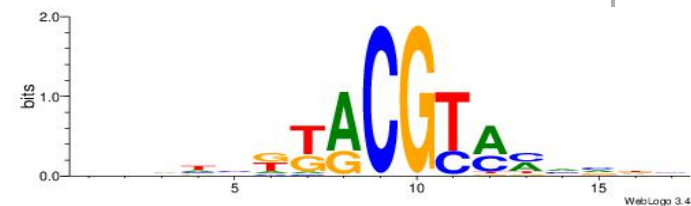
Original motif

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:

RDHDBVDTACGTGASBHVHDH

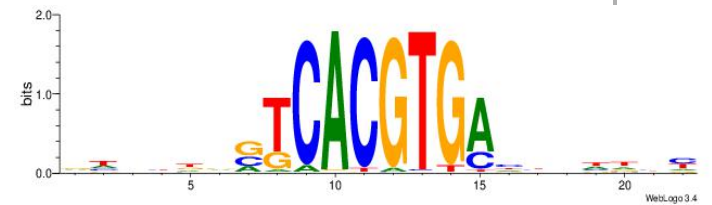
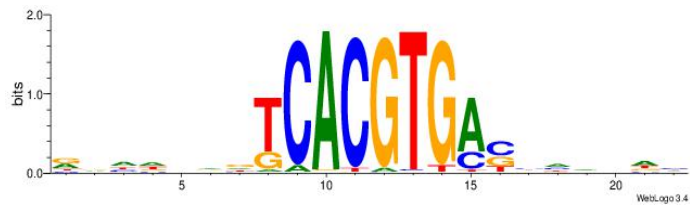
-----VCACGTBV-----

Original motif

Consensus sequence: RDHDBVDTACGTGASBHVHDH

Reverse complement motif

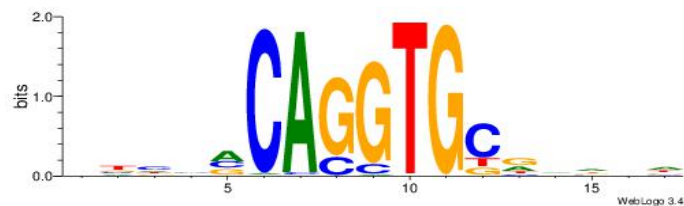
Consensus sequence: DDHBHBSTACGTGAHBBDHMH



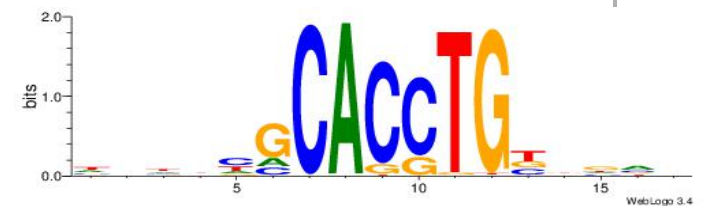
Motif ID: [UP00046](#)  
 Motif name: Tcfe2a\_primary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Forward  
 Position number: 5  
 Number of overlap: 8  
 Similarity score: 0.0184296

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

Original motif  
 Consensus sequence: VBHHVCAGGTGCDVDHD



Reverse complement motif  
 Consensus sequence: DHDBHGCACCTGBDDVB



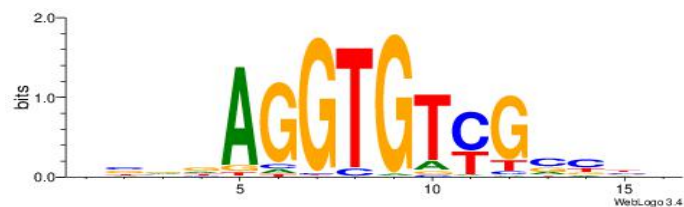
Motif ID: [UP00068](#)  
 Motif name: Eomes\_secondary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Backward  
 Position number: 3  
 Number of overlap: 8  
 Similarity score: 0.0188154

Alignment:

VVBVCKACACCTHVBV  
 -----VCACGTBV--

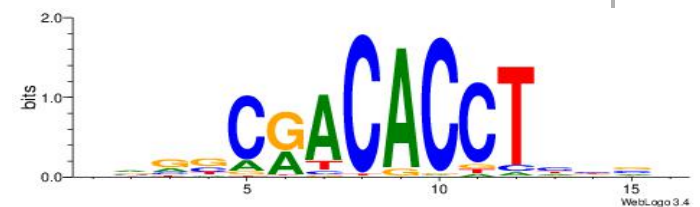
Original motif

Consensus sequence: VBVDAGGTGTGVBVV



Reverse complement motif

Consensus sequence: VVBVCKACACCTHVBV



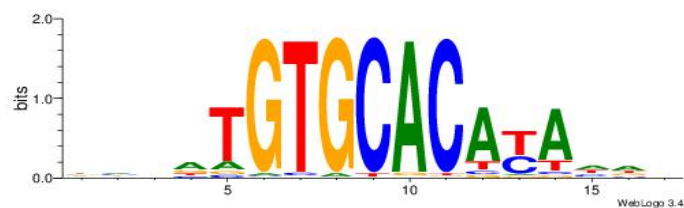
Motif ID: [UP00026](#)  
 Motif name: Zscan4\_primary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Backward  
 Position number: 9

Number of overlap: 8  
Similarity score: 0.0189568

Alignment:  
DHVDTGTGCACAYAHDH  
-VBACGTGV-----

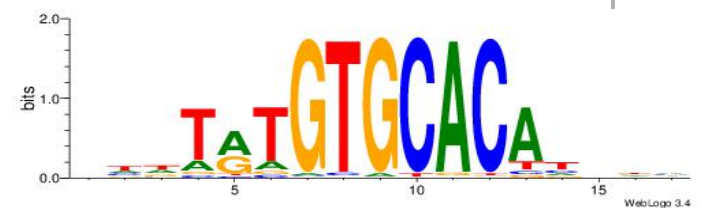
Original motif

Consensus sequence: DHVDTGTGCACAYAHDH



Reverse complement motif

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

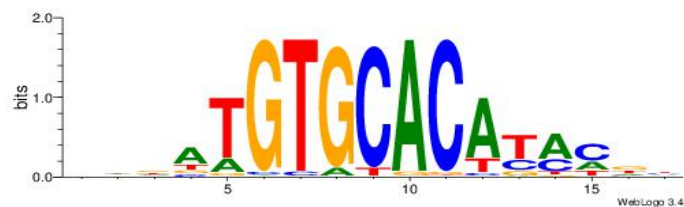
Alignment:  
HHRTATGTGCACATHHD  
--VBACGTGV-----

Original motif

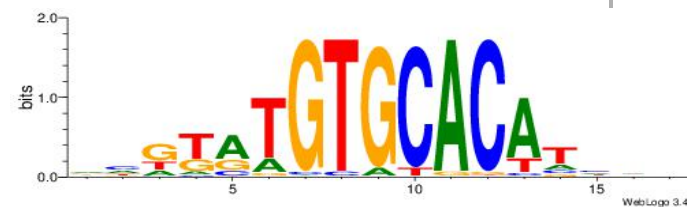
Reverse complement motif



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

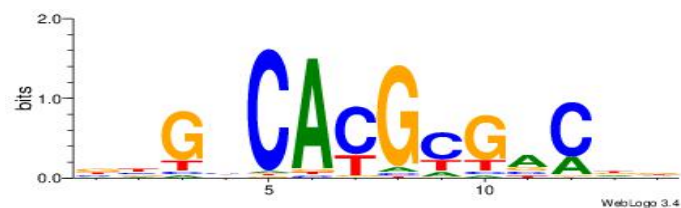
Alignment:

BBGHCACGCGACDD

---VCACGTBV---

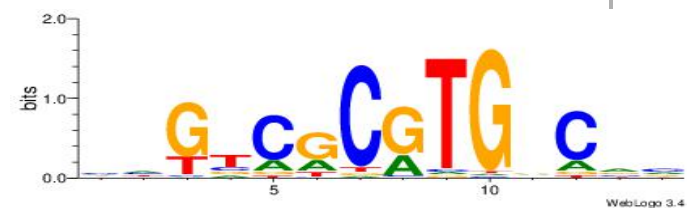
Original motif

Consensus sequence: BBGHCACGCGACDD



Reverse complement motif

Consensus sequence: HDGTGCGGTGDCVB



**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:	<a href="#">UP00400</a>
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:

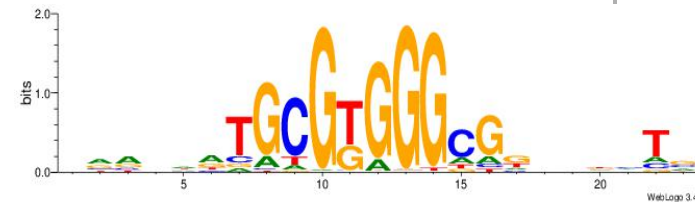
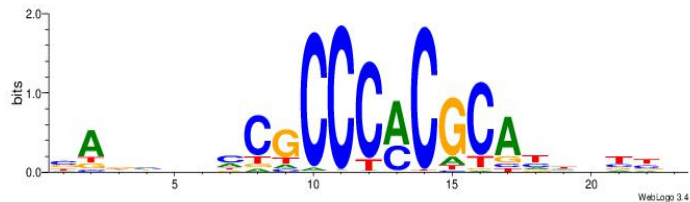
```
VVVDHHTGCGYGGGCGDHSVHHTB
-----YGCGTG-----
```

Original motif

Consensus sequence: BADHBDHCGCCCMCGCAHHDDBV

Reverse complement motif

Consensus sequence: VVVDHHTGCGYGGGCGDHSVHHTB

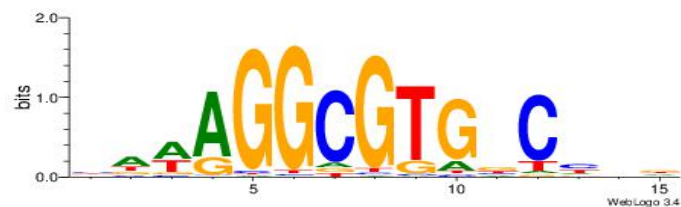


Motif ID: [UP00002](#)  
 Motif name: Sp4\_secondary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Forward  
 Position number: 6  
 Number of overlap: 6  
 Similarity score: 0.00183587

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

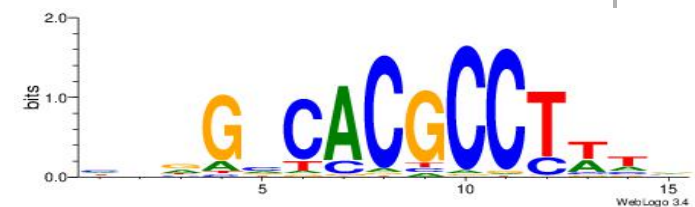
Original motif

Consensus sequence: BDWAGGCGTGBCHHD



Reverse complement motif

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:

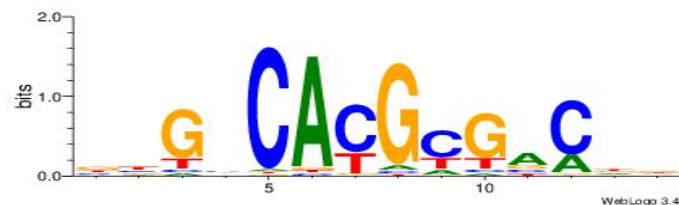
```

HDGTCGCGTGDCVB
----YGCGTG-----

```

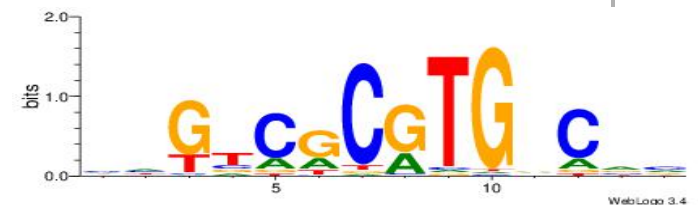
#### Original motif

Consensus sequence: BBGHCACGCGACDD



#### Reverse complement motif

Consensus sequence: HDGTCGCGTGDCVB




---

Motif ID:	<a href="#">UP00527</a>
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

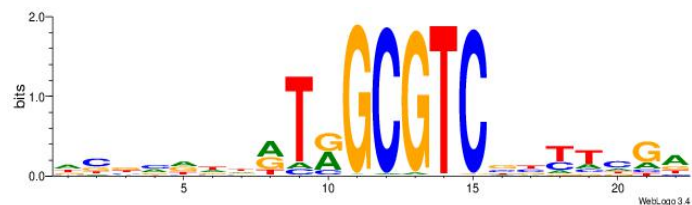
Alignment:

TCDAMVBGACGCMACDDDVBB

-----CACGCM-----

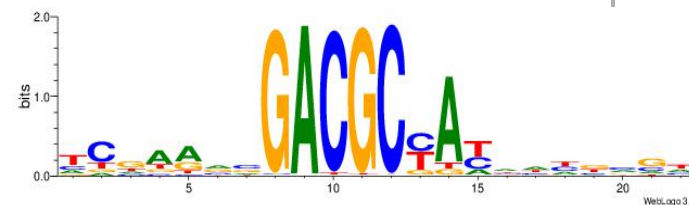
Original motif

Consensus sequence: DBBVDDDRTRGCGTCBBYTHGA



Reverse complement motif

Consensus sequence: TCDAMVBGACGCMACDDDVBB



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

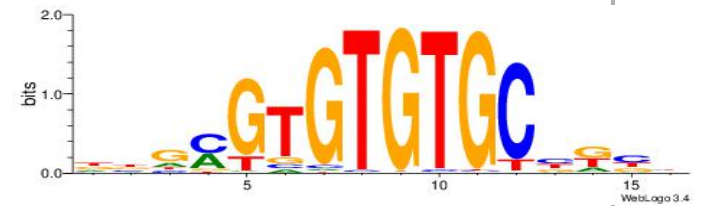
---YGCGTG-----

Original motif

Consensus sequence: DVMVGCACACACKCVH

Reverse complement motif

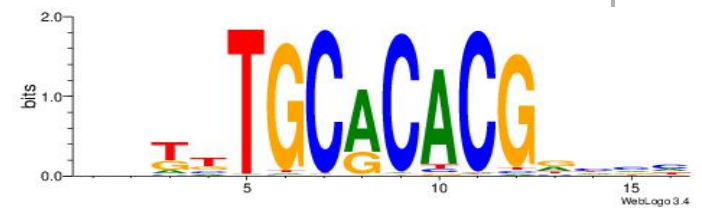
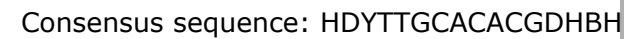
Consensus sequence: HBGYGTGTGTGCVRVD



Alignment:

```
HDYTTGCACACGDHBH
-----CACGCM--
```

Consensus sequence: DBDHCGTGTGCAAMDH



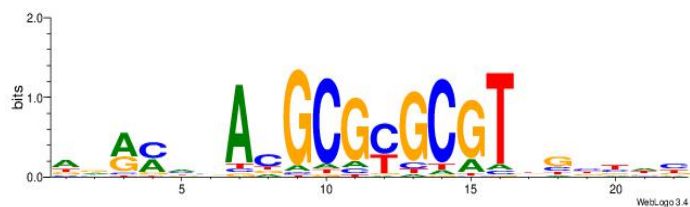
Motif ID: [UP00526](#)  
 Motif name: Foxn1\_secondary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Forward  
 Position number: 8  
 Number of overlap: 6  
 Similarity score: 0.0123233

Alignment:

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

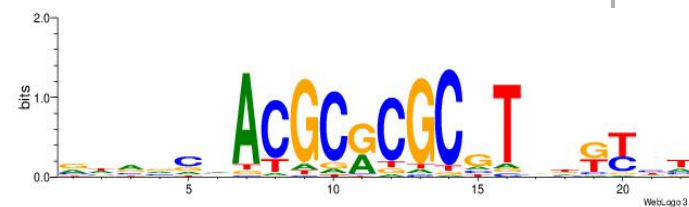
Original motif

Consensus sequence: DDRMHBACGCGYGCGTDGBBDB



Reverse complement motif

Consensus sequence: BDVBCDACGCKCGCGTBHRKHD



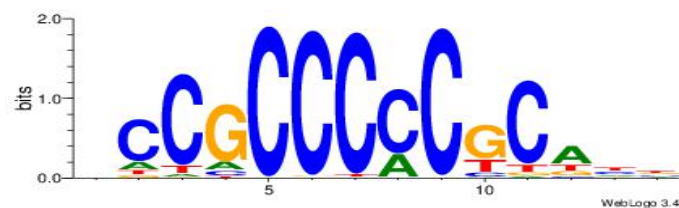
Motif ID: [UP00007](#)  
 Motif name: Egr1\_primary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Original Motif  
 Direction: Backward  
 Position number: 3

Number of overlap: 6  
Similarity score: 0.0141579

Alignment:  
HCCGCCCCCGCAHB  
-----CACGCM--

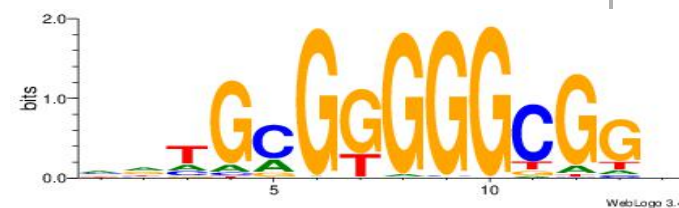
Original motif

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

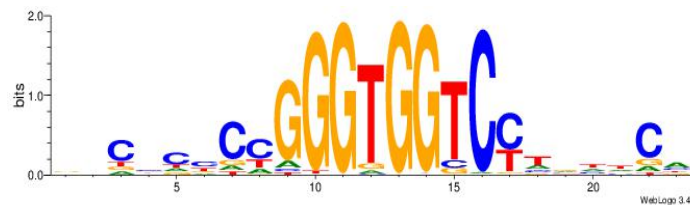
Alignment:  
BHCBCBCCGGGTGGTCYHVHDCH  
-----YGCGTG-----

Original motif

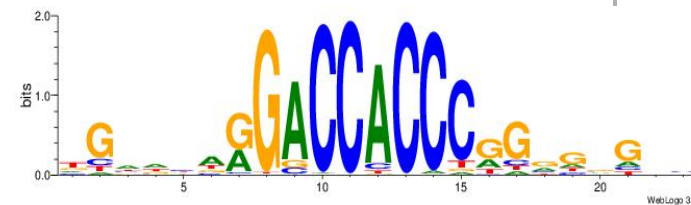
Reverse complement motif



Consensus sequence: BHCBCBCCGGGTGGTCYHVDCH



Consensus sequence: HGDHVHKGACCACCCGGBGBGDB



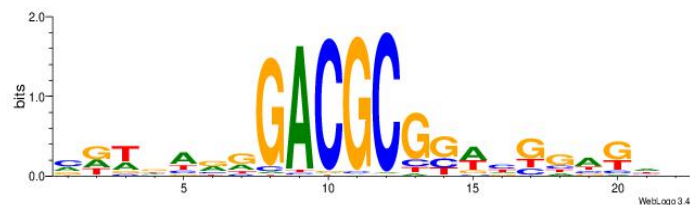
Motif ID: [UP00527](#)  
Motif name: Foxn4\_secondary  
Species: Mus musculus  
Matching format of first motif: Original Motif  
Matching format of second motif: Reverse Complement  
Direction: Backward  
Position number: 8  
Number of overlap: 6  
Similarity score: 0.0172109

Alignment:

```
VHYTCCDWCCGCGTCMMTHWHV  
-----YGCGTG-----
```

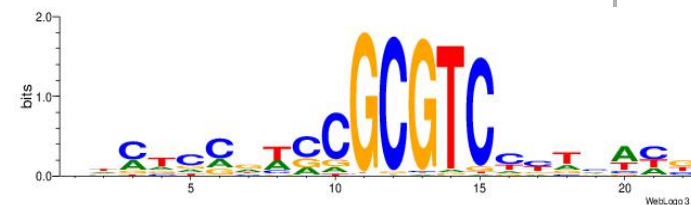
Original motif

Consensus sequence: VDWDARRGACGCGGWHGGAHV



Reverse complement motif

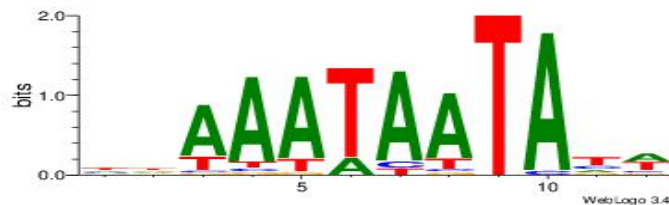
Consensus sequence: VHYTCCDWCCGCGTCMMTHWHV



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

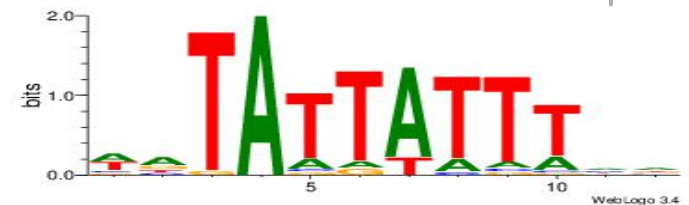
Original motif

Consensus sequence: HDAAATAATAHW



Reverse complement motif

Consensus sequence: WHTATTATTTDH



### Best Matches for Motif ID 37 (Highest to Lowest)

Motif ID:	<a href="#">UP00121</a>
Motif name:	Hoxd10
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	12
Similarity score:	0.00353196

Alignment:

HDDDATTTTATTKVRDB

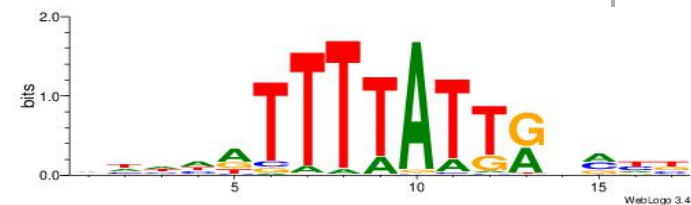
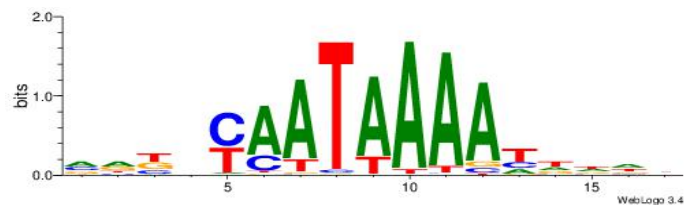
---WHTATTATTTDH--

Original motif

Consensus sequence: VDKVYAATAAAATDDDH

Reverse complement motif

Consensus sequence: HDDDATTTTATTKVRDB

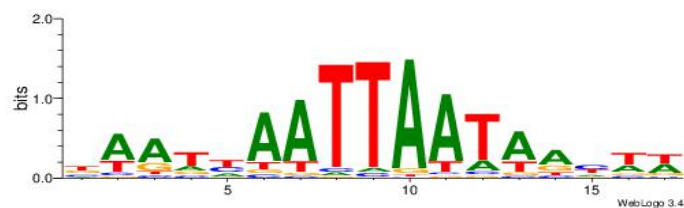


Motif ID: [UP00244](#)  
 Motif name: Tlx2  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Forward  
 Position number: 3  
 Number of overlap: 12  
 Similarity score: 0.00646023

Alignment:  
 WDDTTATTAATTHATTV  
 --WHTATTATTTDH---

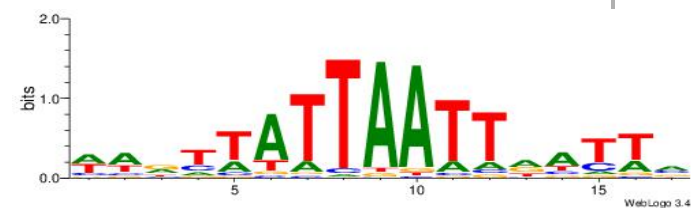
Original motif

Consensus sequence: BAATHAATTAATAAHWW



Reverse complement motif

Consensus sequence: WDDTTATTAATTHATTV



Motif ID: [UP00051](#)

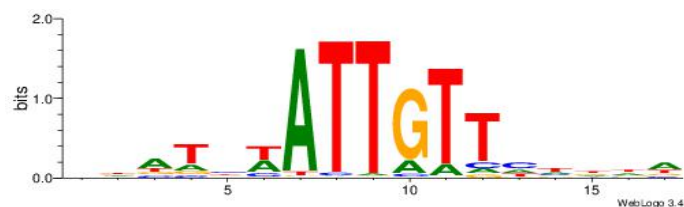
Motif name: Sox8\_primary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Reverse Complement  
 Direction: Backward  
 Position number: 4  
 Number of overlap: 12  
 Similarity score: 0.0120674

#### Alignment:

DDDHDAACAATWBATDD  
 --HDAAATAATAHW---

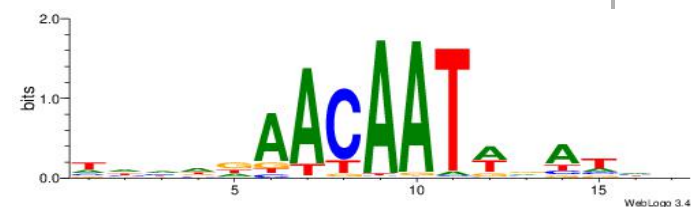
#### Original motif

Consensus sequence: DDATBWATTGTTHHDDD



#### Reverse complement motif

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

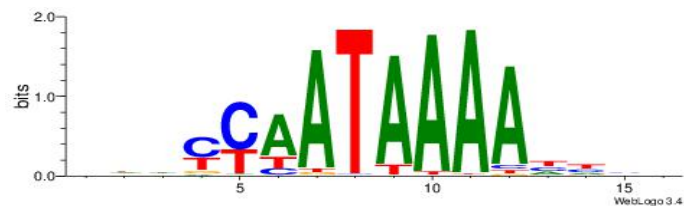
Alignment:

HDHHTTTTATTKKHDD

--WHTATTATTTDH--

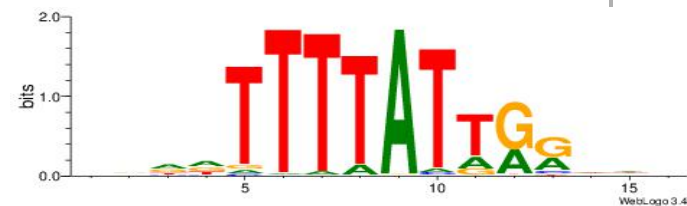
Original motif

Consensus sequence: HDHYAATAAAAHHHH



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

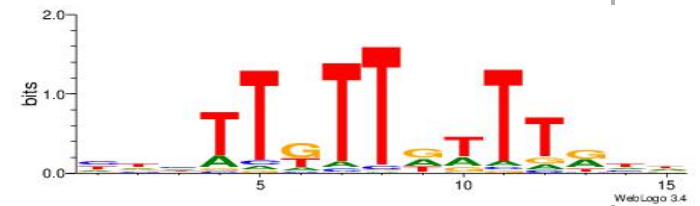
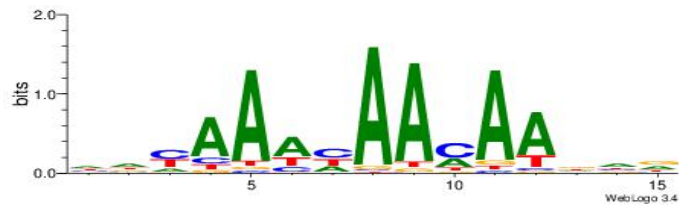
--WHTATTATTTDH--

Original motif

Consensus sequence: HDYAAHAAMAADHD

Reverse complement motif

Consensus sequence: HHHTTRTTDTTTKDH



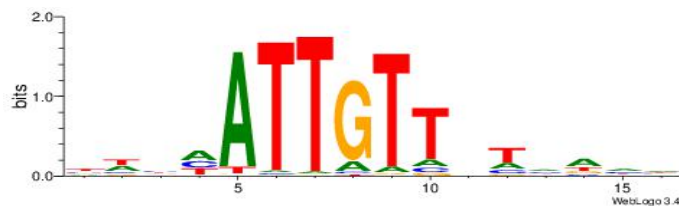
Motif ID: [UP00064](#)  
 Motif name: Sox18\_primary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Reverse Complement  
 Direction: Forward  
 Position number: 4  
 Number of overlap: 12  
 Similarity score: 0.0130138

#### Alignment:

HHDHABAACAATHBWV  
 ---HDAAATAATAHW-

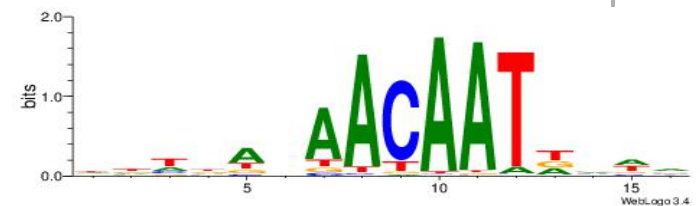
#### Original motif

Consensus sequence: BWBHATTGTTBTHDHH



#### Reverse complement motif

Consensus sequence: HHDHABAACAATHBWV



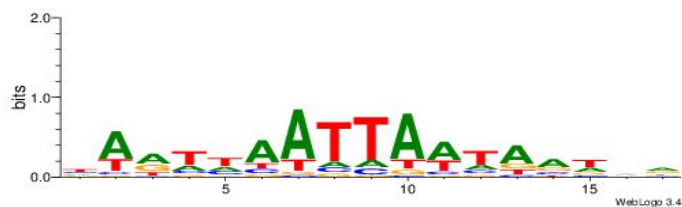
Motif ID: [UP00255](#)  
 Motif name: Dbx1  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Forward  
 Position number: 4  
 Number of overlap: 12  
 Similarity score: 0.0131034

Alignment:

HARTHAATTAWTAVDHD  
 ---HDAAATAATAHW--

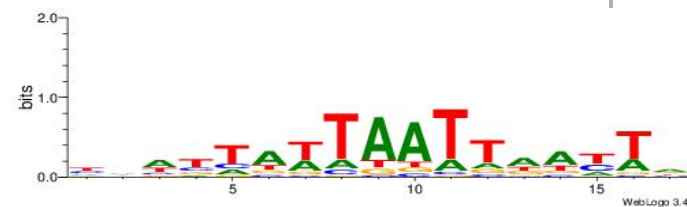
Original motif

Consensus sequence: HARTHAATTAWTAVDHD



Reverse complement motif

Consensus sequence: DHDBTAWTAATTTHAKTH



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

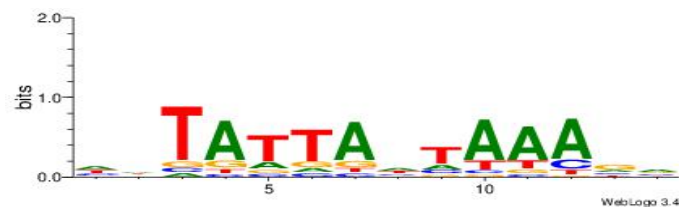
Number of overlap: 12  
Similarity score: 0.0140433

Alignment:

HDTATTAHTAAVV  
WHTATTATTTDH--

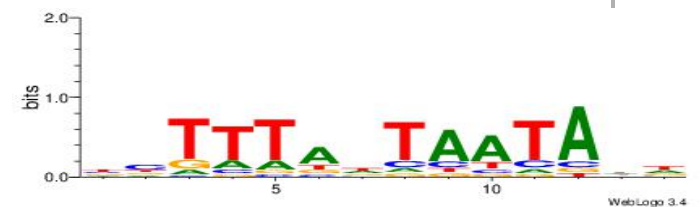
Original motif

Consensus sequence: HDTATTAHTAAVV



Reverse complement motif

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:

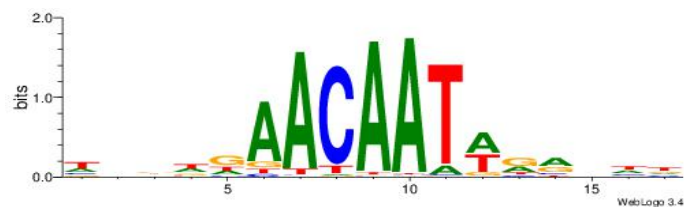
DHV KMWATTGTTHDHDH  
---WHTATTATTTDH--

Original motif

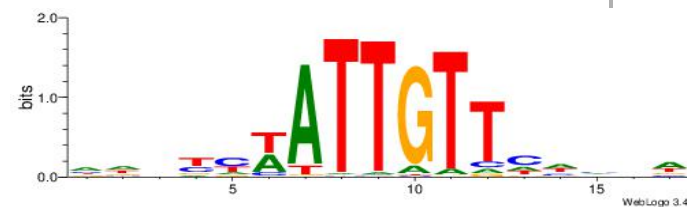
Reverse complement motif



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

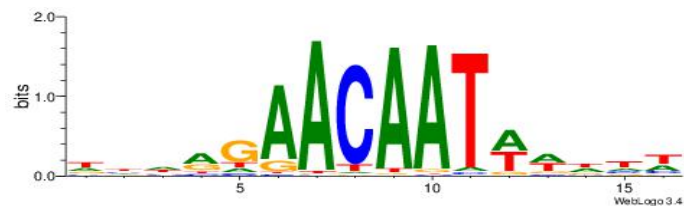
Alignment:

WHDWWATTGTTCKDHD

--WHTATTATTTDH--

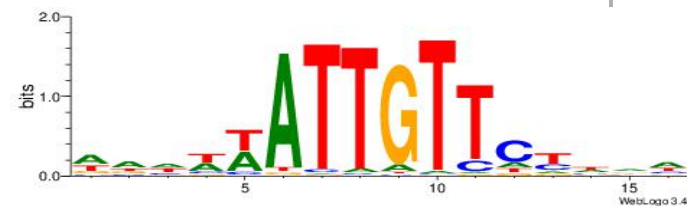
Original motif

Consensus sequence: DHDRGAACAATWWDHW



Reverse complement motif

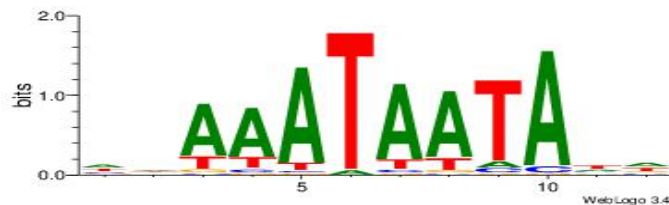
Consensus sequence: WHDWWATTGTTCKDHD



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

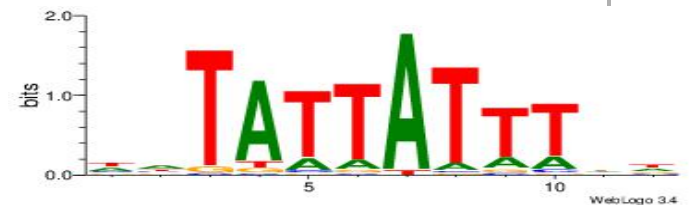
Original motif

Consensus sequence: HDAAATAATADD



Reverse complement motif

Consensus sequence: DDTATTATTTDH



### Best Matches for Motif ID 41 (Highest to Lowest)

Motif ID:	<a href="#">UP00244</a>
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

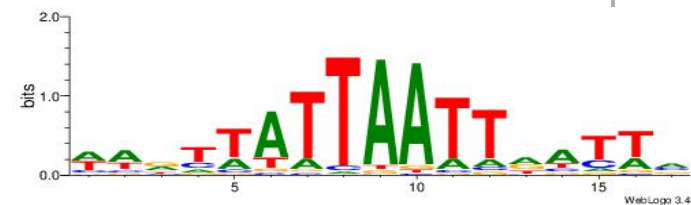
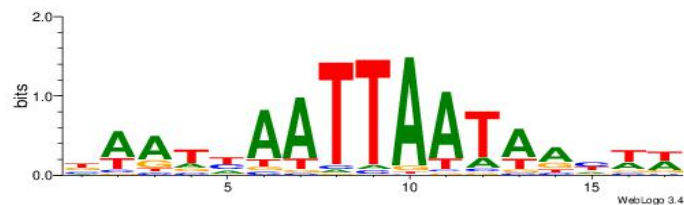
--DDTATTATTTDH---

Original motif

Consensus sequence: BAATHAATTAATAAHHWW

Reverse complement motif

Consensus sequence: WWDTTATTAATTHATTV

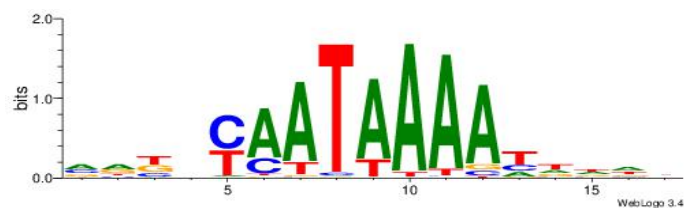


Motif ID: [UP00121](#)  
 Motif name: Hoxd10  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Forward  
 Position number: 4  
 Number of overlap: 12  
 Similarity score: 0.00673636

Alignment:  
 HDDDATTTTATTKVRDB  
 ---DDTATTATTTDH--

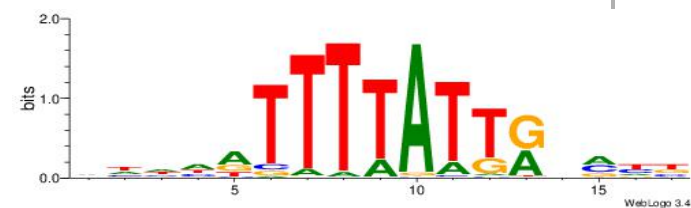
Original motif

Consensus sequence: VDKVYAATAAAATDDDH



Reverse complement motif

Consensus sequence: HDDDATTTTATTKVRDB



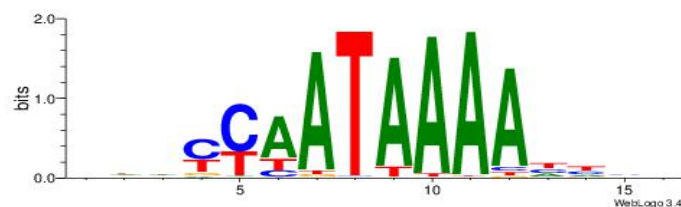
Motif ID: [UP00180](#)

Motif name: Hoxd13  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Backward  
 Position number: 3  
 Number of overlap: 12  
 Similarity score: 0.00685179

Alignment:  
 HDHHTTTTATTKKHDD  
 --DDTATTATTTDH--

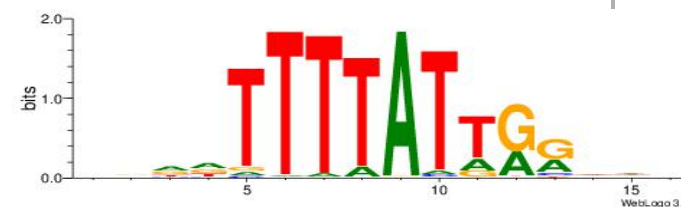
Original motif

Consensus sequence: HDHYAATAAAHHHH



Reverse complement motif

Consensus sequence: HDHHTTTTATTKKHDD




---

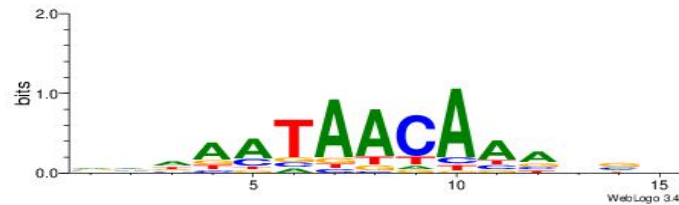
Motif ID: [UP00073](#)  
 Motif name: Foxa2\_secondary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Forward  
 Position number: 1  
 Number of overlap: 12  
 Similarity score: 0.0108327

Alignment:

VVDAATAACAAAVVB  
HDAAATAATADD---

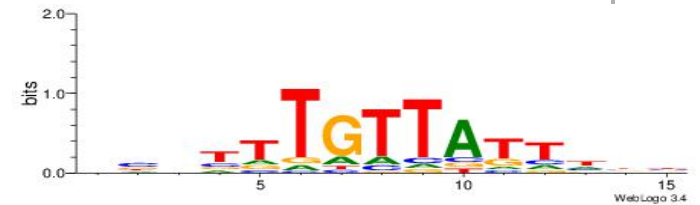
Original motif

Consensus sequence: VVDAATAACAAAVVB



Reverse complement motif

Consensus sequence: BVVTTTGTATTDBB



---

Motif ID:	<a href="#">UP00134</a>
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:

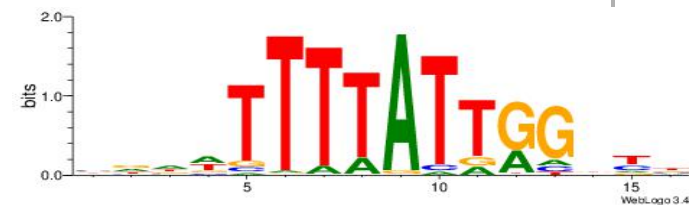
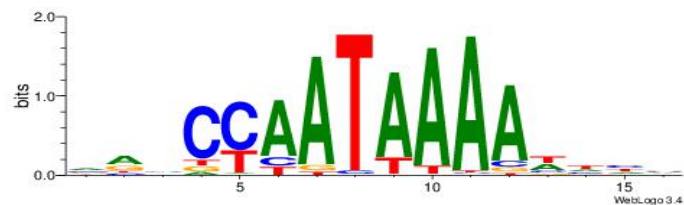
VDHWTTTTATTGGDKB  
--DDTATTATTTDH--

Original motif

Consensus sequence: VRHCCAATAAAWHHV

Reverse complement motif

Consensus sequence: VDHWTTTTATTGGDKB

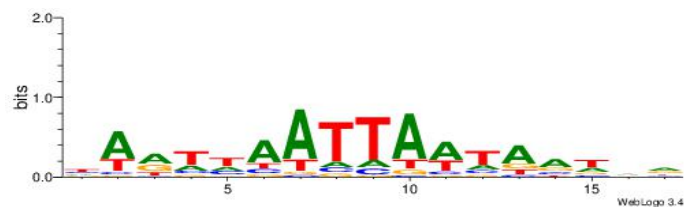


Motif ID: [UP00255](#)  
 Motif name: Dbx1  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Forward  
 Position number: 4  
 Number of overlap: 12  
 Similarity score: 0.0133808

Alignment:  
 HARTHAATTAWTAVDHD  
 ---HDAAATAATADD--

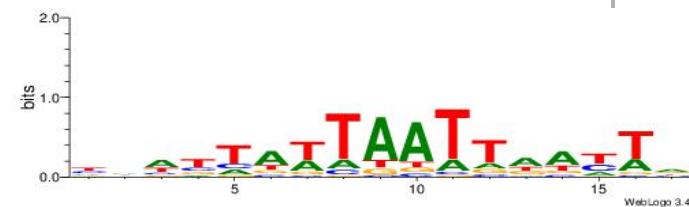
Original motif

Consensus sequence: HARTHAATTAWTAVDHD



Reverse complement motif

Consensus sequence: DHDBTAWTAATTHAKTH



Motif ID: [UP00034](#)

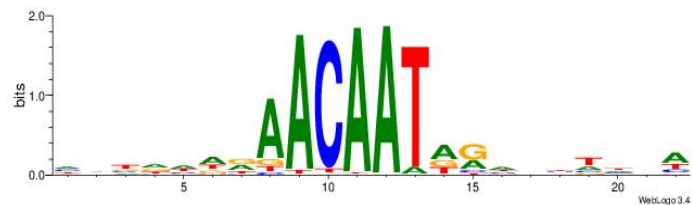
Motif name: Sox7\_primary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Backward  
 Position number: 7  
 Number of overlap: 12  
 Similarity score: 0.0144702

#### Alignment:

HHBDHDDAACAATDRHHHHHBW  
 ----HDAAATAATADD-----

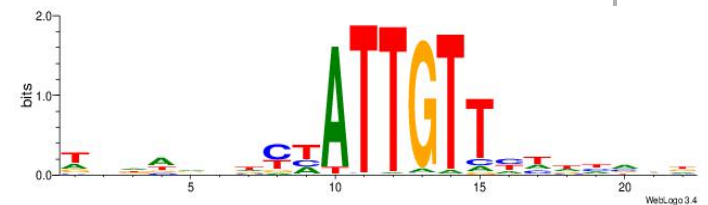
#### Original motif

Consensus sequence: HHBDHDDAACAATDRHHHHHBW



#### Reverse complement motif

Consensus sequence: WBHHHHHMDATTGTTHDHDVHH




---

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

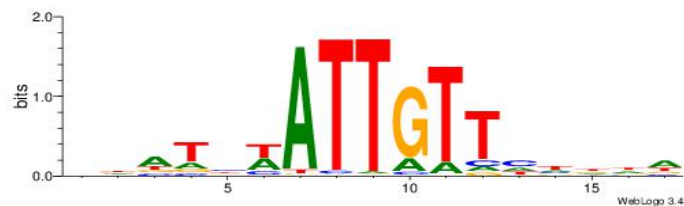
Alignment:

DDATBWATTGTTHHDDD

---DDTATTATTTDH--

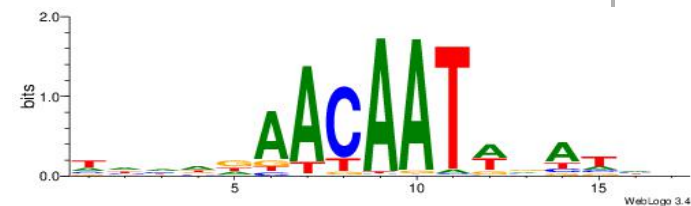
Original motif

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

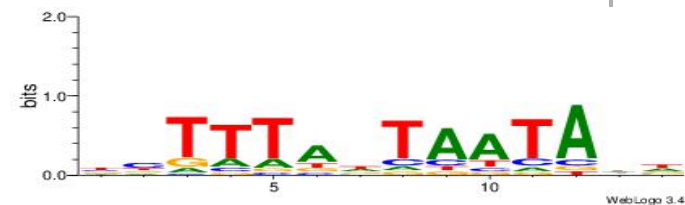
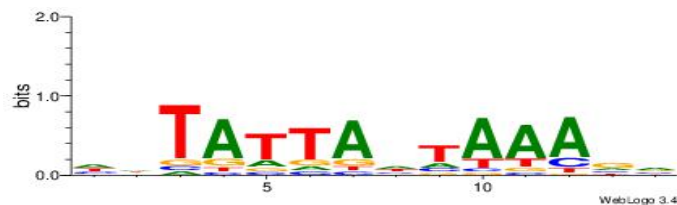
Original motif

Consensus sequence: HDTATTAHTAAVV

Reverse complement motif

Consensus sequence: BVTTTAHTAATADH

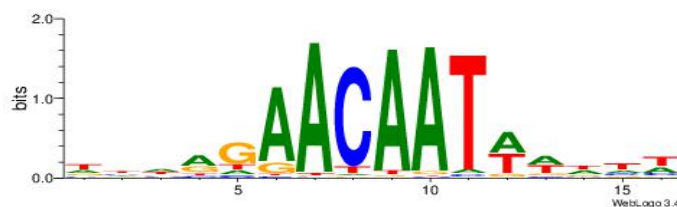




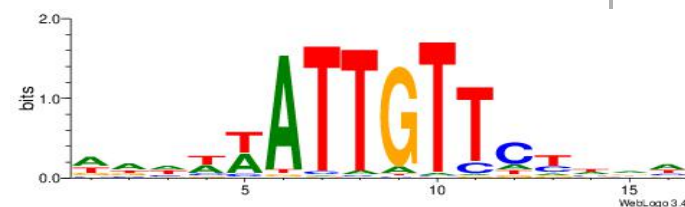
Motif ID: [UP00096](#)  
 Motif name: Sox13\_primary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Forward  
 Position number: 3  
 Number of overlap: 12  
 Similarity score: 0.014968

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: DBGTAATAHD



Reverse complement motif

Consensus sequence: DHTATTTACBD



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

Motif ID:	<a href="#">UP00242</a>
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

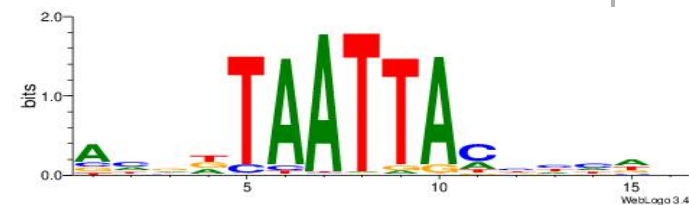
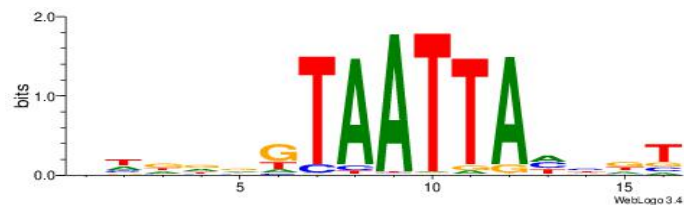
--DHTATTTACBD---

Original motif

Consensus sequence: BHDDDGTAATTAAHHD

Reverse complement motif

Consensus sequence: AHDHTAATTACHHHHV

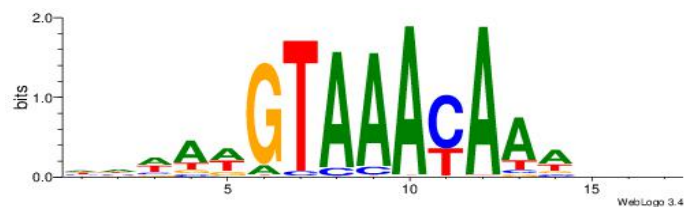


Motif ID: [UP00073](#)  
 Motif name: Foxa2\_primary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Backward  
 Position number: 4  
 Number of overlap: 11  
 Similarity score: 0.00453517

Alignment:  
 HHWAWGTAAAYAAVDB  
 ---DBGTAATAHD---

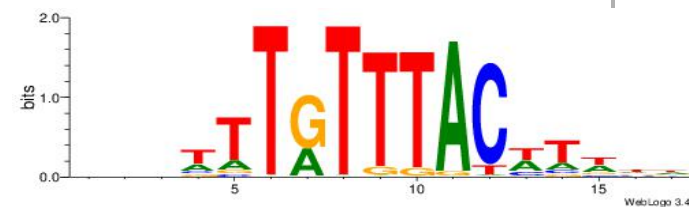
Original motif

Consensus sequence: HHWAWGTAAAYAAVDB



Reverse complement motif

Consensus sequence: BDVTTTKTTTACWTWHH



Motif ID: [UP00039](#)

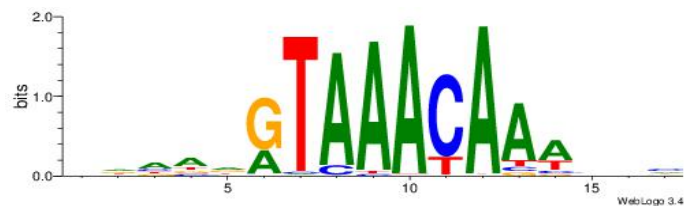
Motif name: Foxj3\_primary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Forward  
 Position number: 4  
 Number of overlap: 11  
 Similarity score: 0.00490457

#### Alignment:

HDHADGTAAACAAVVH  
 ---DBGTAATAHD---

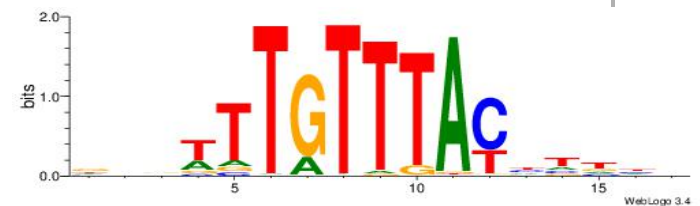
#### Original motif

Consensus sequence: HDHADGTAAACAAVVH



#### Reverse complement motif

Consensus sequence: DVVTTTGTTCACDTHDH




---

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

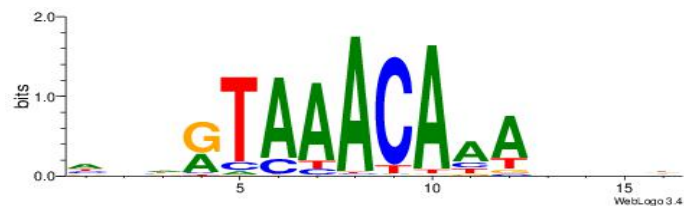
Alignment:

HDHRTAAACAAHDDD

-DBGTAATAHD----

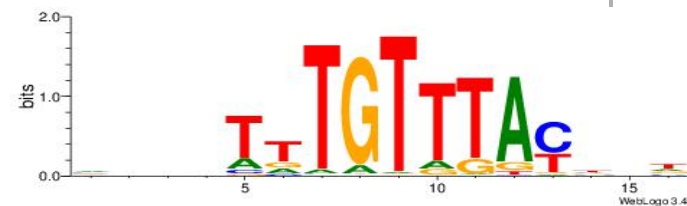
Original motif

Consensus sequence: HDHRTAAACAAHDDD



Reverse complement motif

Consensus sequence: DDDHTTTGTTTAMHDDH



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

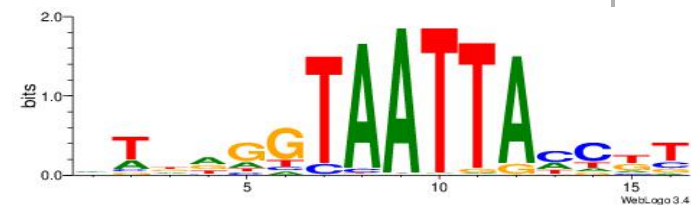
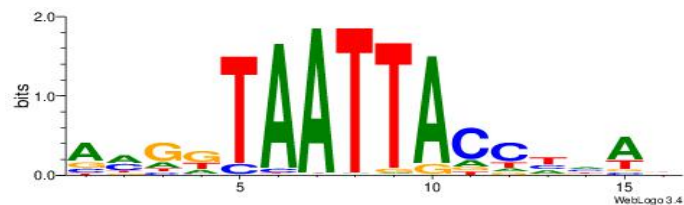
---DBGTAATAHD--

Original motif

Consensus sequence: AMGKTAATTACCHHAD

Reverse complement motif

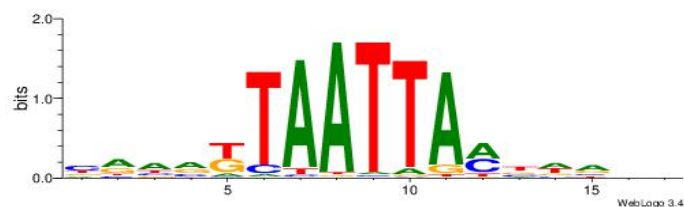
Consensus sequence: DTHHGGTAATTAYCYT



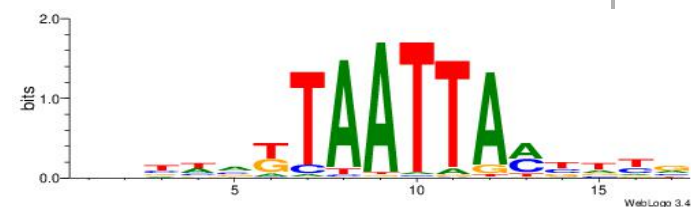
Motif ID: [UP00260](#)  
 Motif name: Hoxc6  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Original Motif  
 Direction: Forward  
 Position number: 4  
 Number of overlap: 11  
 Similarity score: 0.0092156

Alignment:  
 BRHVKTAATTAMBDVVD  
 ---DHTATTTACBD---

Original motif  
 Consensus sequence: BRHVKTAATTAMBDVVD



Reverse complement motif  
 Consensus sequence: DBBDVYTAATTARBHKB



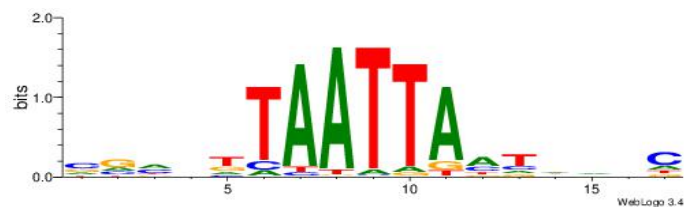
Motif ID: [UP00164](#)  
 Motif name: Hoxa7\_2668.2  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Original Motif  
 Direction: Forward  
 Position number: 4  
 Number of overlap: 11  
 Similarity score: 0.00942246

Alignment:

VVHDDTAATTAHTDDBC  
 ---DHTATTTACBD---

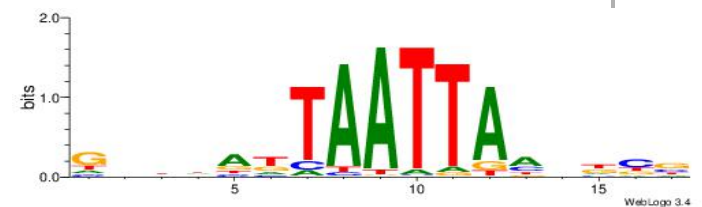
Original motif

Consensus sequence: VVHDDTAATTAHTDDBC



Reverse complement motif

Consensus sequence: GBDDAHTAATTADHHV



Motif ID: [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

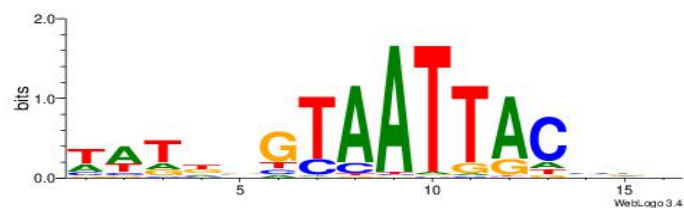
Number of overlap: 11  
Similarity score: 0.00949005

Alignment:

VDVGTAATTACBDAWW  
-DBGTAATAHD----

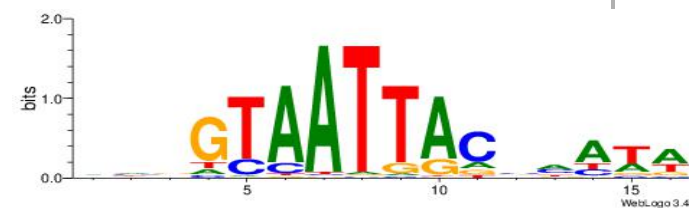
Original motif

Consensus sequence: WWTDBGTAATTACVDB



Reverse complement motif

Consensus sequence: VDVGTAAATTACBDAWW



---

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:

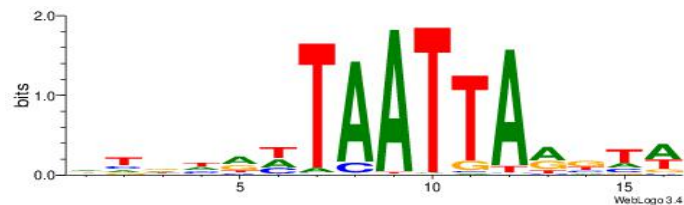
WABKTAATTAKHHHD  
-DBGTAATAHD----

Original motif

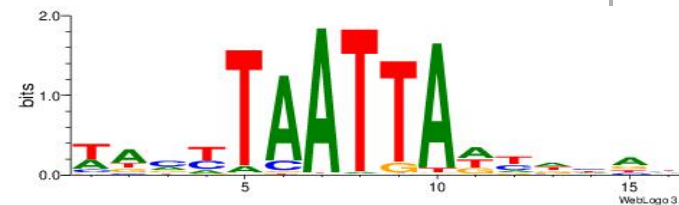
Reverse complement motif



Consensus sequence: DHDHRHTAATTARBTW



Consensus sequence: WABKTAATTAHKHHHD



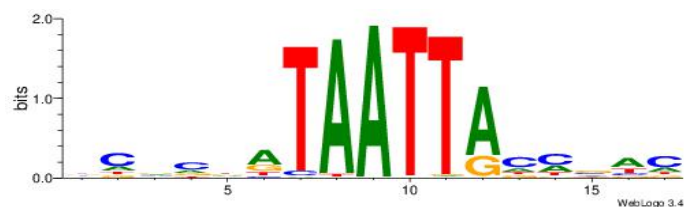
Motif ID: [UP00110](#)  
Motif name: Dlx4  
Species: Mus musculus  
Matching format of first motif: Original Motif  
Matching format of second motif: Reverse Complement  
Direction: Forward  
Position number: 3  
Number of overlap: 11  
Similarity score: 0.0107458

Alignment:

GHVRGTAATTATDVVG  
--DBGTAATAHD----

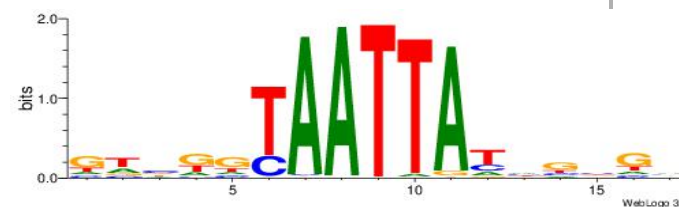
Original motif

Consensus sequence: BCVVDATAATTACMVHC



Reverse complement motif

Consensus sequence: GHVRGTAATTATDVVG



**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:	<a href="#">UP00065</a>
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

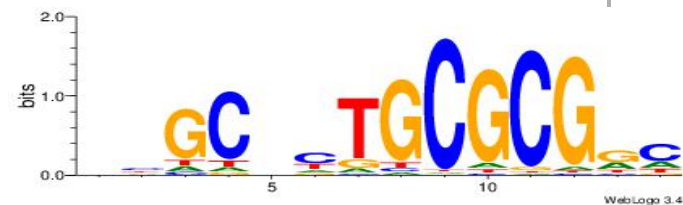
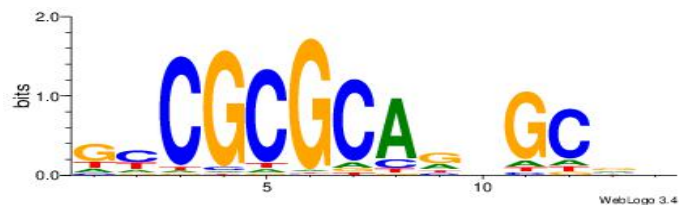
GTCGCG-----

Original motif

Consensus sequence: GYCGCGCARBGCVB

Reverse complement motif

Consensus sequence: VVGCVMTGCGCGKC

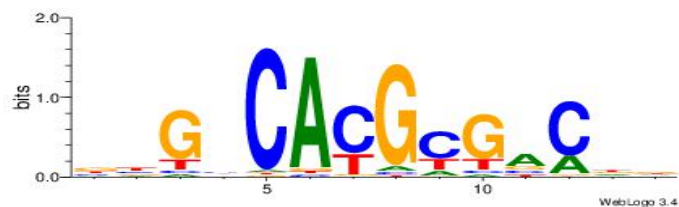


Motif ID: [UP00060](#)  
 Motif name: Max\_secondary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Original Motif  
 Direction: Backward  
 Position number: 3  
 Number of overlap: 6  
 Similarity score: 0.00875457

Alignment:  
 BBGHCACGCGACDD  
 -----CGCGAC--

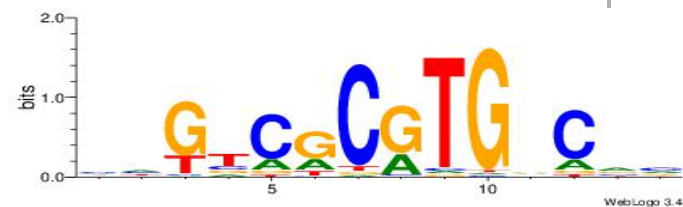
Original motif

Consensus sequence: BBGHCACGCGACDD



Reverse complement motif

Consensus sequence: HDGTGCGGTGDCVB



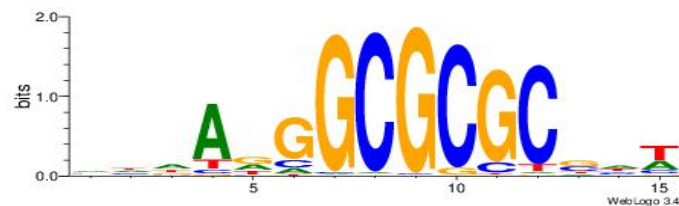
Motif ID: [UP00003](#)

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:  
 W H S G C G C G C C H T D H B  
 ----CGCGAC-----

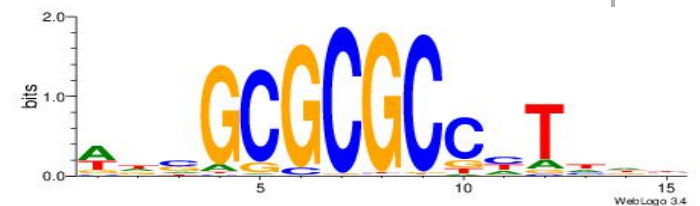
Original motif

Consensus sequence: VHDADGGCGCGCSHW



Reverse complement motif

Consensus sequence: W H S G C G C G C C H T D H B



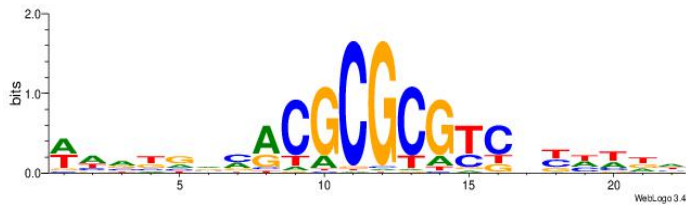

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Motif ID: [UP00526](#)  
 Motif name: Foxn1\_primary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Original Motif  
 Direction: Backward  
 Position number: 7  
 Number of overlap: 6

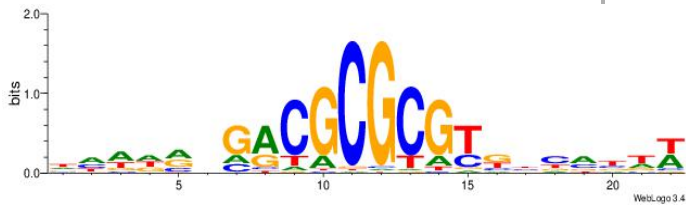
Similarity score: 0.0119605

Alignment:  
WHVBVVMACGCGCGTCDYHWDH  
-----CGCGAC-----

Original motif  
Consensus sequence: WHVBVVMACGCGCGTCDYHWDH



Reverse complement motif  
Consensus sequence: HDWHMHGACGCGCGTRBVBVHW

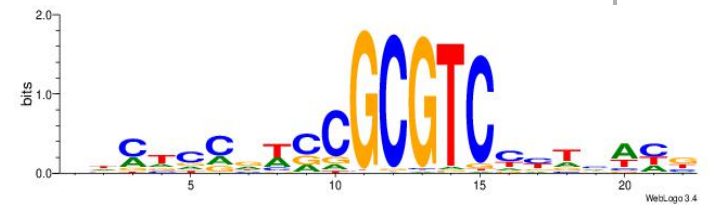
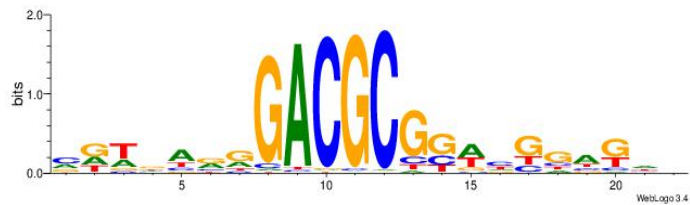


Motif ID: [UP00527](#)  
Motif name: Foxn4\_secondary  
Species: Mus musculus  
Matching format of first motif: Original Motif  
Matching format of second motif: Original Motif  
Direction: Backward  
Position number: 10  
Number of overlap: 6  
Similarity score: 0.014366

Alignment:  
VDWDARRGACGCGGWHGGAKHV  
-----GTCGCG-----

Original motif  
Consensus sequence: VDWDARRGACGCGGWHGGAKHV

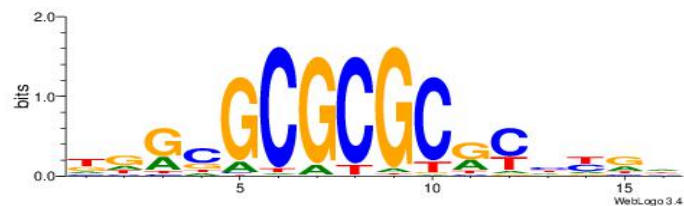
Reverse complement motif  
Consensus sequence: VHYTCCDWCCGCGTCMMTHWHV



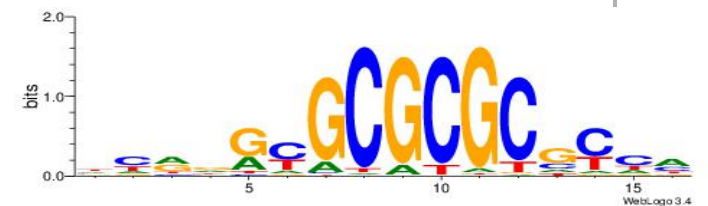
Motif ID: [UP00065](#)  
 Motif name: Zfp161\_primary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Forward  
 Position number: 10  
 Number of overlap: 6  
 Similarity score: 0.0143989

Alignment:  
 DMMDGMGCGCGCHD  
 -----CGCGAC--

Original motif  
 Consensus sequence: DDGCGCGCGCRCHYRD



Reverse complement motif  
 Consensus sequence: DMMDGMGCGCGCHD

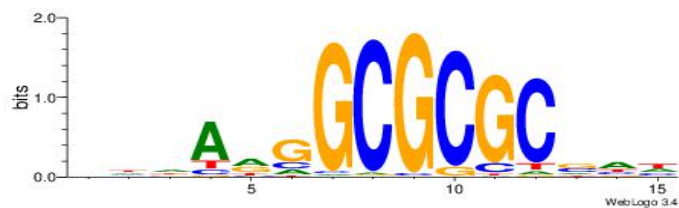


Motif ID: [UP00001](#)  
 Motif name: E2F2\_primary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Forward  
 Position number: 5  
 Number of overlap: 6  
 Similarity score: 0.0147239

Alignment:  
 HHVGCGCGCCKTDHB  
 ----CGCGAC-----

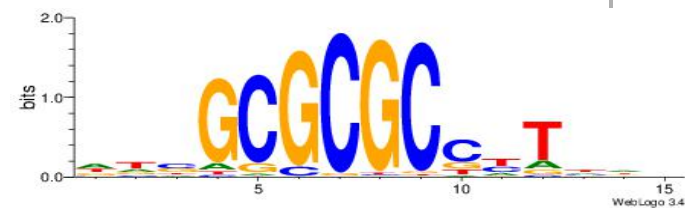
Original motif

Consensus sequence: VHDARGGCGCGCVHH



Reverse complement motif

Consensus sequence: HHVGCGCGCCKTDHB



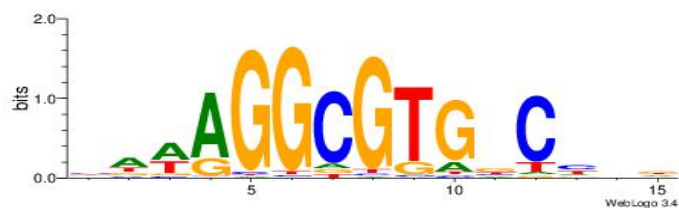
Motif ID: [UP00002](#)  
 Motif name: Sp4\_secondary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Reverse Complement  
 Direction: Backward  
 Position number: 7

Number of overlap: 6  
Similarity score: 0.0222574

Alignment:  
HHDGBCACGCCTWDB  
---GTCGCG-----

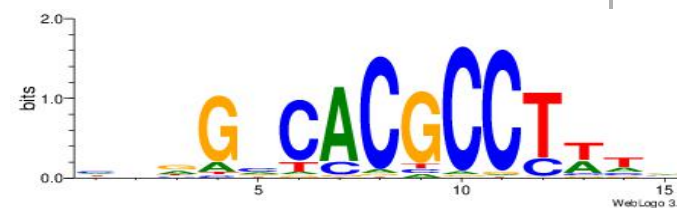
Original motif

Consensus sequence: BDWAGGCGTGBCHHD



Reverse complement motif

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

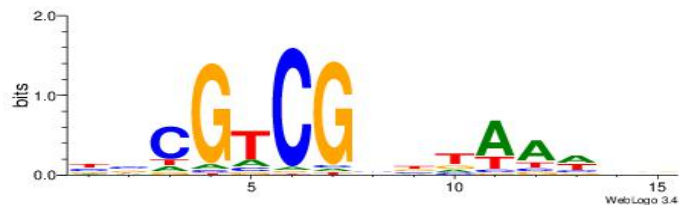
Alignment:  
BBCGTCGHBTAAWDB  
---GTCGCG-----

Original motif

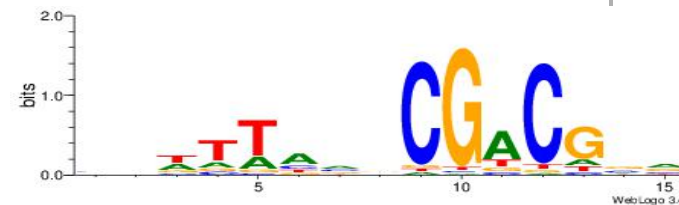
Reverse complement motif



Consensus sequence: BBCGTCGHBTAAWDB



Consensus sequence: BDWTTAVDCGACGBV



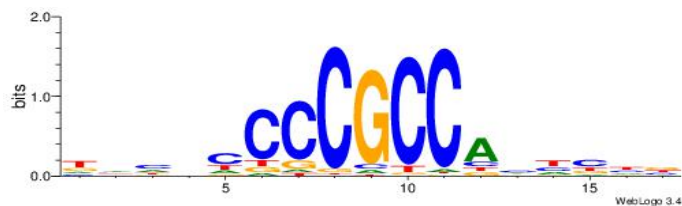
Motif ID: [UP00000](#)  
Motif name: Smad3\_secondary  
Species: Mus musculus  
Matching format of first motif: Original Motif  
Matching format of second motif: Reverse Complement  
Direction: Forward  
Position number: 5  
Number of overlap: 6  
Similarity score: 0.0317992

Alignment:

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

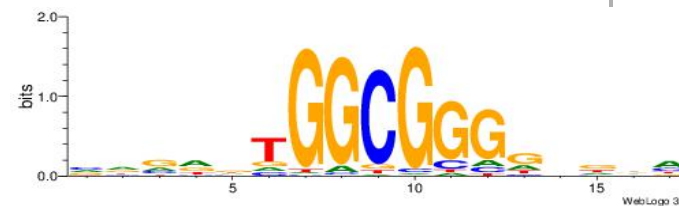
Original motif

Consensus sequence: DHHBCCCCGCCAHHBHB



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:	<a href="#">UP00526</a>
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:

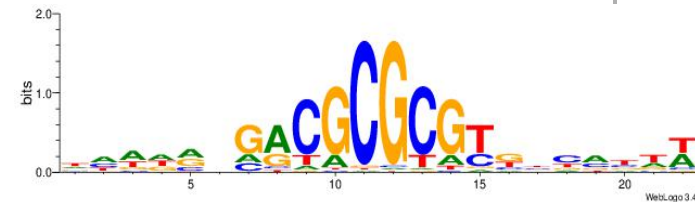
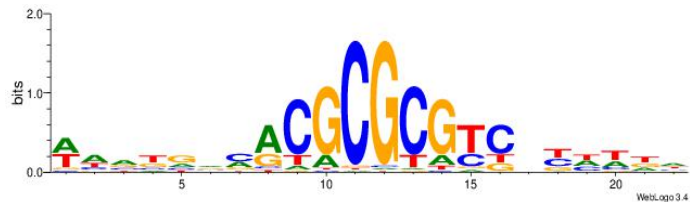
```
HDWHMHGACGCGCGTRBVBHW
-----CCGCGCGS-----
```

Original motif

Consensus sequence: WHVBVVMACGCGCGTCDYHWDH

Reverse complement motif

Consensus sequence: HDWHMHGACGCGCGTRBVBHW



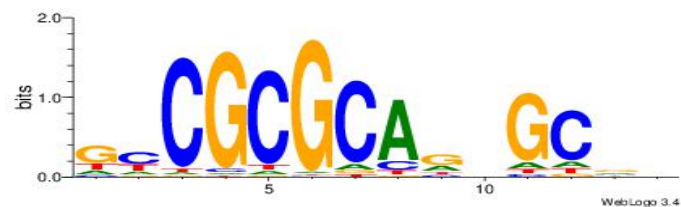
Motif ID: [UP00065](#)  
 Motif name: Zfp161\_secondary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Backward  
 Position number: 2  
 Number of overlap: 8  
 Similarity score: 0.00228411

#### Alignment:

VVGCVMTGCGCGKC  
 -----CCGCGCGS-

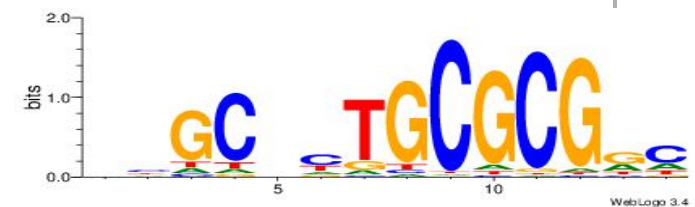
#### Original motif

Consensus sequence: GYCGCGCARBGCVB



#### Reverse complement motif

Consensus sequence: VVGCVMTGCGCGKC



Motif ID: [UP00003](#)

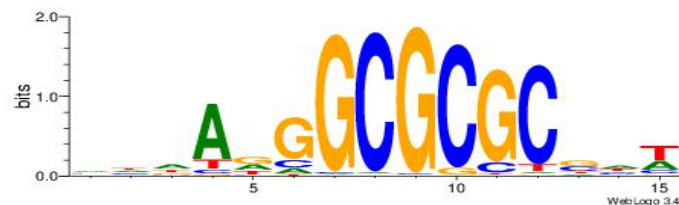
Motif name: E2F3\_primary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Backward  
 Position number: 7  
 Number of overlap: 8  
 Similarity score: 0.00337853

Alignment:

W H S G C G C G C C H T D H B  
 - C C G C G C G S - - - - -

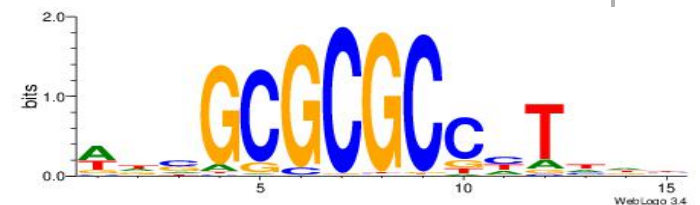
Original motif

Consensus sequence: VHDADGGCGCGCSHW



Reverse complement motif

Consensus sequence: W H S G C G C G C C H T D H B




---

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

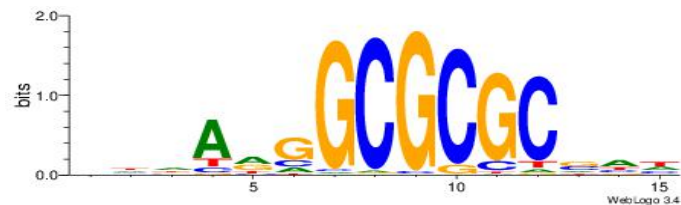
Alignment:

HHVCGCGCCKTDHB

-CCGCGCGS-----

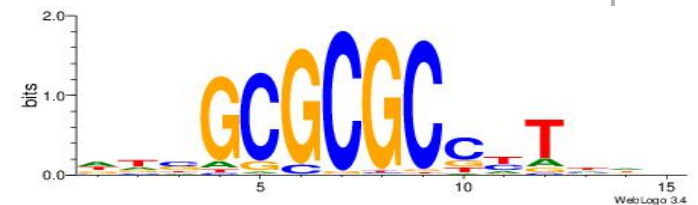
Original motif

Consensus sequence: VHDARGGCGCGCVHH



Reverse complement motif

Consensus sequence: HHVCGCGCCKTDHB



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

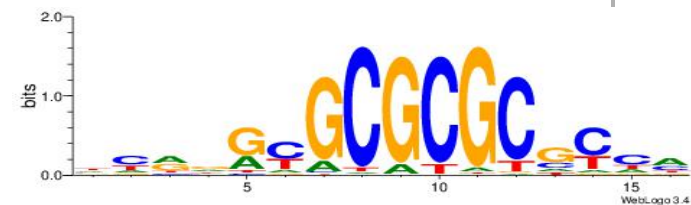
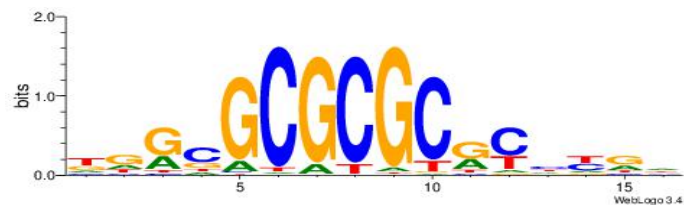
----CCGCGCGS----

Original motif

Consensus sequence: DDGCGCGCGCRCHYRD

Reverse complement motif

Consensus sequence: DMMDGMGCGCGCGCHD



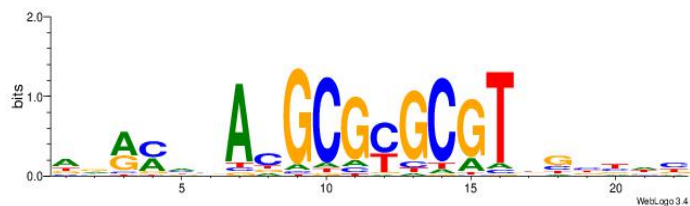
Motif ID: [UP00526](#)  
 Motif name: Foxn1\_secondary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Forward  
 Position number: 7  
 Number of overlap: 8  
 Similarity score: 0.0149577

#### Alignment:

BDVBCDACGCKCGCGTBHRKHD  
 -----CCGCGCGS-----

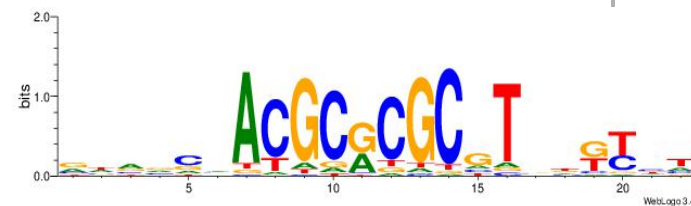
#### Original motif

Consensus sequence: DDRMHBACGCGYGCGTDGBBDB



#### Reverse complement motif

Consensus sequence: BDVBCDACGCKCGCGTBHRKHD



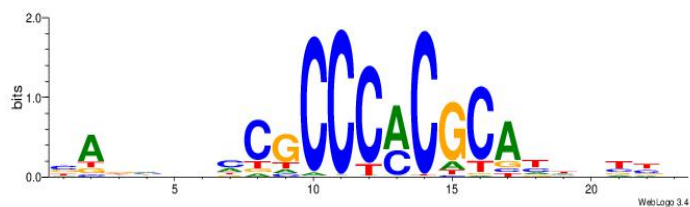
Motif ID: [UP00400](#)  
 Motif name: Zif268  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Reverse Complement  
 Direction: Forward  
 Position number: 6  
 Number of overlap: 8  
 Similarity score: 0.0194485

Alignment:

VVVDHHTGCGYGGGCGDHSVHHTB  
 -----SCGCGCGG-----

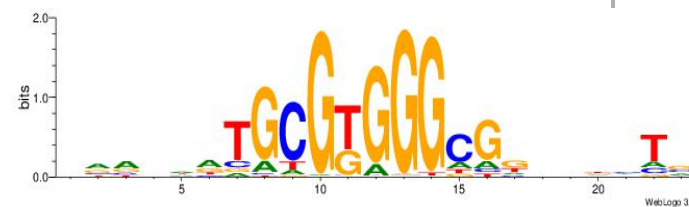
Original motif

Consensus sequence: BADHBDHCGCCCMCGCAHHDBBV



Reverse complement motif

Consensus sequence: VVVDHHTGCGYGGGCGDHSVHHTB



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

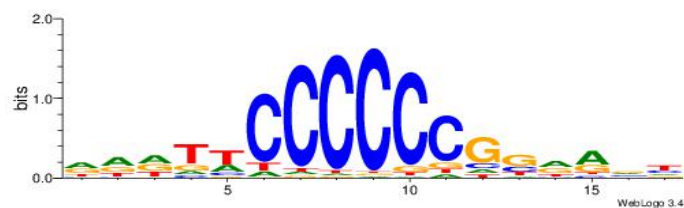
Number of overlap: 8  
Similarity score: 0.0230299

Alignment:

DDDTWCCCCCGGDRVH  
-----CCGCGCGS-----

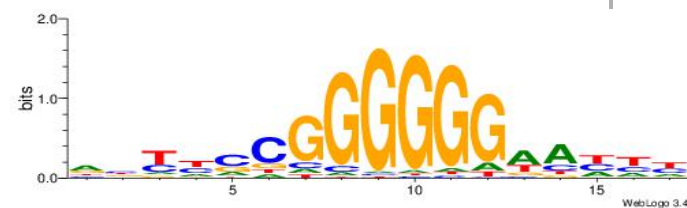
Original motif

Consensus sequence: DDDTWCCCCCGGDRVH



Reverse complement motif

Consensus sequence: HVKDCCGGGGGGWADDD



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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:

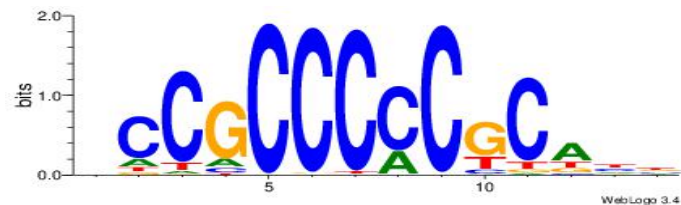
HCCGCCCCCGCAHB  
-----CCGCGCGS-----

Original motif

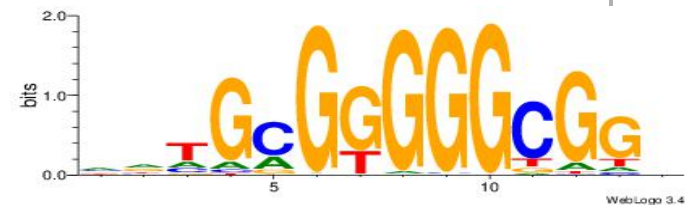
Reverse complement motif



Consensus sequence: HCCGCCCCCGCAHB



Consensus sequence: VHTGCGGGGGCGGH



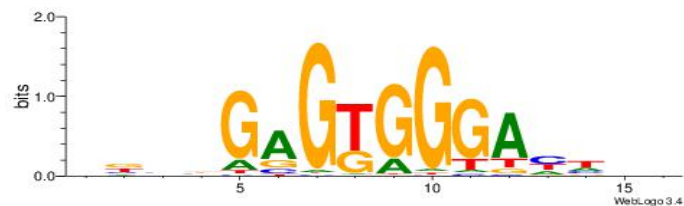
Motif ID: [UP00007](#)  
Motif name: Egr1\_secondary  
Species: Mus musculus  
Matching format of first motif: Reverse Complement  
Matching format of second motif: Reverse Complement  
Direction: Forward  
Position number: 7  
Number of overlap: 8  
Similarity score: 0.0249557

Alignment:

BHHDTCCTCACTCBDBV  
-----CCGCGCGS--

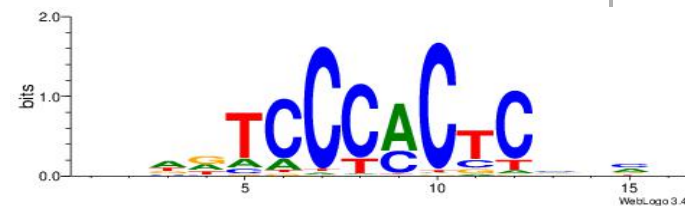
Original motif

Consensus sequence: BBHBGAGTGGGAHHDB



Reverse complement motif

Consensus sequence: BHHDTCCTCACTCBDBV



Results created by MOTIFSIM on 06-19-2018 08:41:08  
Runtime: 819.17 seconds

MOTIFSIM is written by Ngoc Tam L. Tran  
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