



# MOTIFSIM - MOTIF SIMilarity Detection Tool

Version 2.1

## INPUT

### Input Parameters

|                                   |                       |
|-----------------------------------|-----------------------|
| Number of files:                  | 2                     |
| Number of top significant motifs: | 10                    |
| Number of best matches:           | 10                    |
| Similarity cutoff $\geq$          | 0.75                  |
| Matching motif database:          | UniProbe Mus Musculus |
| Phylogenetic tree:                | Yes                   |
| Combined similar motifs:          | Yes                   |
| Output file type:                 | All                   |
| Output file format:               | All                   |

### Input files and motif counts

| File name           | Count of motifs | Dataset number |
|---------------------|-----------------|----------------|
| MEME-ChIP_DM721.txt | 11              | 1              |
| PScanChIP_DM721.txt | 37              | 2              |

## RESULTS

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

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

Original motif

Consensus sequence: RGGGAAR



Reverse complement motif

Consensus sequence: MTTCCCK



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

|                                  |                         |
|----------------------------------|-------------------------|
| Motif ID:                        | <a href="#">UP00090</a> |
| Motif name:                      | Elf3_primary            |
| Species:                         | Mus musculus            |
| Matching format of first motif:  | Reverse Complement      |
| Matching format of second motif: | Reverse Complement      |
| Direction:                       | Backward                |
| Position number:                 | 5                       |
| Number of overlap:               | 6                       |
| Similarity score:                | 0                       |

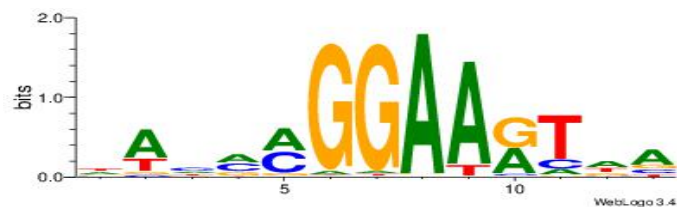
Alignment:

TDAMTTCCYYDTD

---MTTCK----

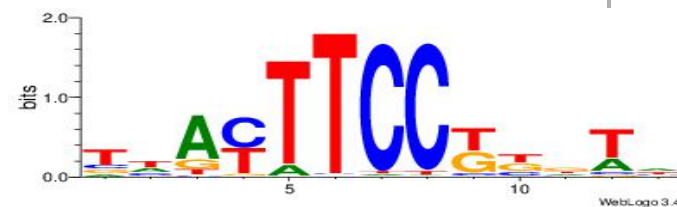
Original motif

Consensus sequence: DAHMMGGAARTDA



Reverse complement motif

Consensus sequence: TDAMTTCCYYDTD



Motif ID:

[UP00085](#)

Motif name:

Sfpi1\_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:

0.00351709

Alignment:

HDAC TTCCBCWTDV

---MTTCCK-----

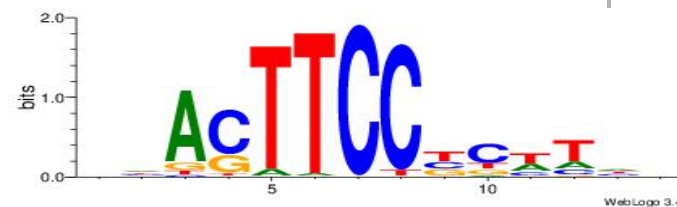
Original motif

Consensus sequence: BDAWGVGGAAGTDH



Reverse complement motif

Consensus sequence: HDAC TTCCBCWTDV



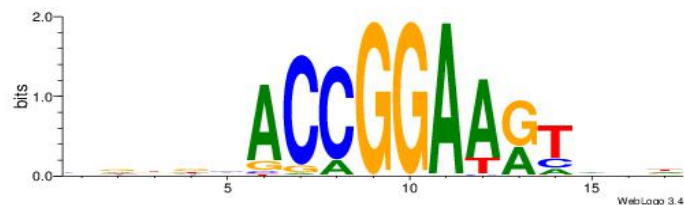
Motif ID: [UP00414](#)  
 Motif name: Ets1  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Forward  
 Position number: 5  
 Number of overlap: 6  
 Similarity score: 0.00356242

Alignment:

DDBAMTTCCGGTDHDB  
 ----MTTCK-----

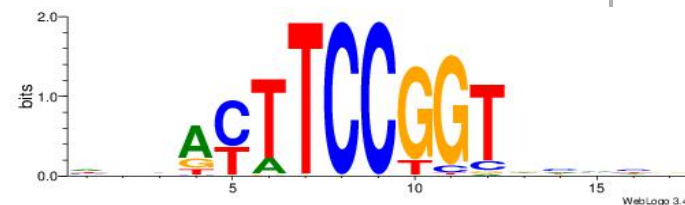
Original motif

Consensus sequence: BDDDHACCGGAARTVDD



Reverse complement motif

Consensus sequence: DDBAMTTCCGGTDHDB



Motif ID: [UP00409](#)  
 Motif name: Elf5  
 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: 6  
Similarity score: 0.00439981

Alignment:

BWAHSMGGAAGTWD  
-----RGAAR---

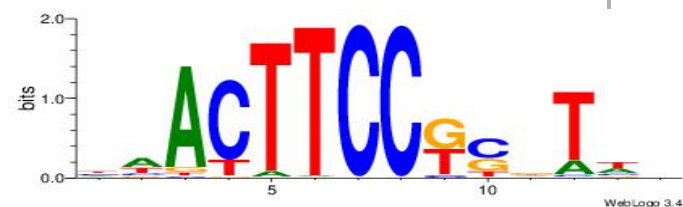
Original motif

Consensus sequence: BWAHSMGGAAGTWD



Reverse complement motif

Consensus sequence: DWACTTCCRSDTWV



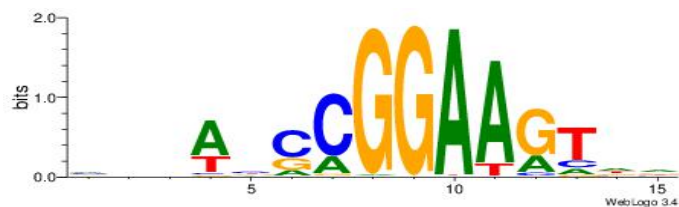
Motif ID: [UP00015](#)  
Motif name: Ehf\_primary  
Species: Mus musculus  
Matching format of first motif: Reverse Complement  
Matching format of second motif: Reverse Complement  
Direction: Forward  
Position number: 4  
Number of overlap: 6  
Similarity score: 0.00655644

Alignment:

DDACTTCCGGBTHBB  
---MTTCK-----

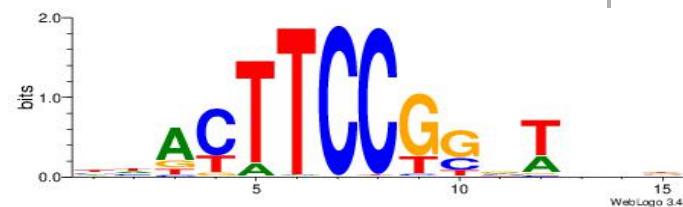
Original motif

Consensus sequence: VBDABCCGGAAGTDD



Reverse complement motif

Consensus sequence: DDACTTCCGGBTHBB



Motif ID:

[UP00013](#)

Motif name:

Gabpa\_primary

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:

0.00663687

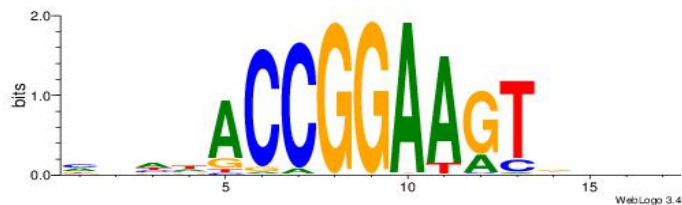
Alignment:

BHHHACTTCGGTHHBD

-----MTTCK-----

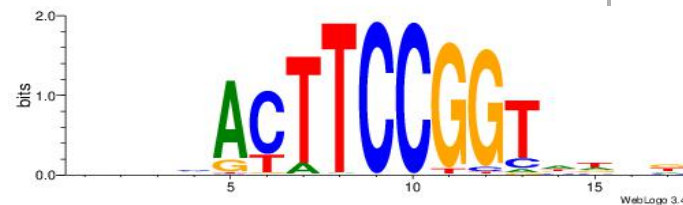
Original motif

Consensus sequence: HVHHACCGGAAGTDHHV



Reverse complement motif

Consensus sequence: BHHHACTTCGGTHHBD



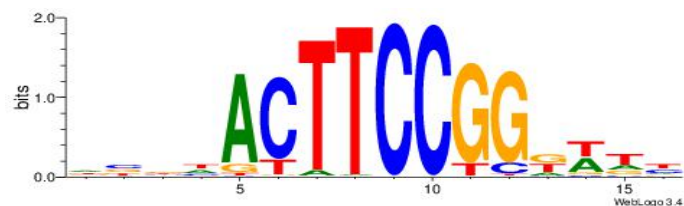
Motif ID: [UP00413](#)  
 Motif name: Elf4  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Original Motif  
 Direction: Forward  
 Position number: 6  
 Number of overlap: 6  
 Similarity score: 0.00896416

Alignment:

DBBHACTTCCGGKWTH  
 -----MTTCK-----

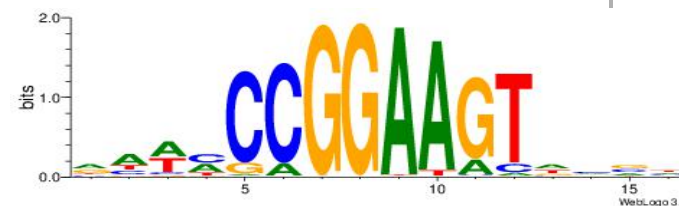
Original motif

Consensus sequence: DBBHACTTCCGGKWTH



Reverse complement motif

Consensus sequence: HAWYCCGGAAGTHBBD



Motif ID: [UP00419](#)  
 Motif name: Spic  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Forward

Position number: 6  
Number of overlap: 6  
Similarity score: 0.00975526

Alignment:

VAAAGMGGAAAGTWD  
-----RGAAR---

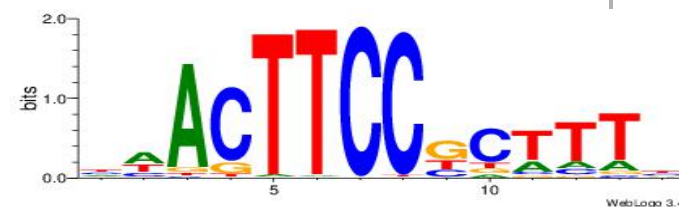
Original motif

Consensus sequence: VAAAGMGGAAAGTWD



Reverse complement motif

Consensus sequence: DWACTTCRCRCTTTB



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Motif ID: [UP00418](#)  
Motif name: Etv6  
Species: Mus musculus  
Matching format of first motif: Reverse Complement  
Matching format of second motif: Original Motif  
Direction: Forward  
Position number: 7  
Number of overlap: 6  
Similarity score: 0.0103447

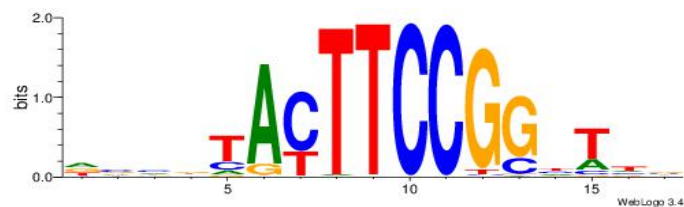
Alignment:

DVHBTACTTCCGGHTHB  
-----MTTCCK-----



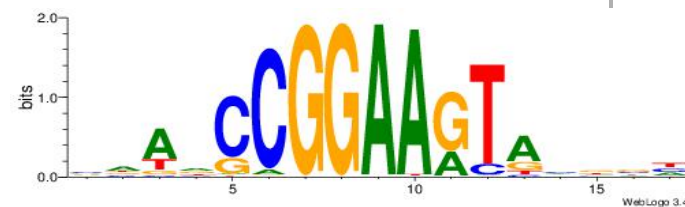
### Original motif

Consensus sequence: DVHBTACTTCGGHTHB



### Reverse complement motif

Consensus sequence: BHAHCCGGAAGTABDVD



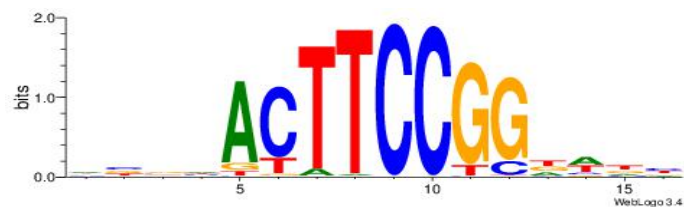
Motif ID: [UP00404](#)  
Motif name: Elf2  
Species: Mus musculus  
Matching format of first motif: Reverse Complement  
Matching format of second motif: Original Motif  
Direction: Forward  
Position number: 6  
Number of overlap: 6  
Similarity score: 0.010491

### Alignment:

```
DBBHACTTCCGGDWDB  
-----MTTCCK-----
```

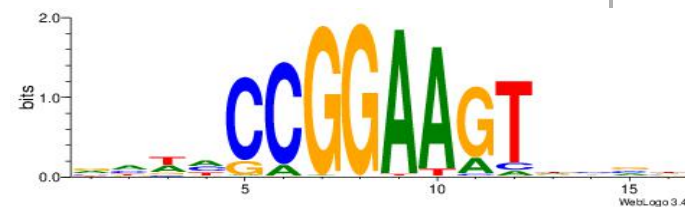
### Original motif

Consensus sequence: DBBHACTTCCGGDWDB



### Reverse complement motif

Consensus sequence: BDWDCCGGAAGTHBBD



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

Original motif

Consensus sequence: AMACA



Reverse complement motif

Consensus sequence: TGTRT



### Best Matches for Motif ID 2 (Highest to Lowest)

|                                  |                         |
|----------------------------------|-------------------------|
| Motif ID:                        | <a href="#">UP00042</a> |
| Motif name:                      | Gm397_second            |
| Species:                         | Mus musculus            |
| Matching format of first motif:  | Original Motif          |
| Matching format of second motif: | Original Motif          |
| Direction:                       | Forward                 |
| Position number:                 | 7                       |
| Number of overlap:               | 5                       |
| Similarity score:                | 0                       |

Alignment:

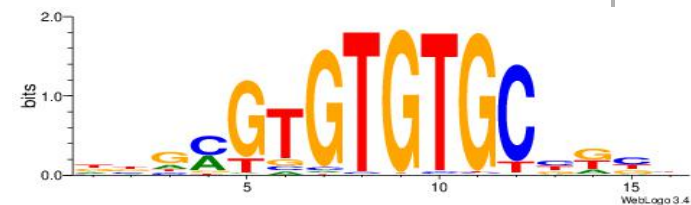
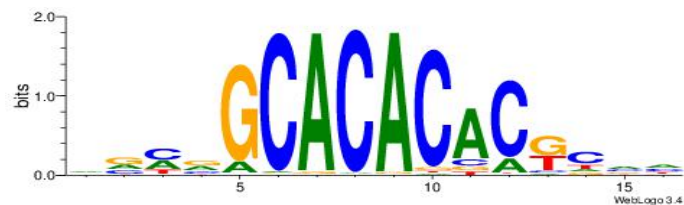
```
DVMVGCACACACKCVH
-----AMACA-----
```

Original motif

Consensus sequence: DVMVGCACACACKCVH

Reverse complement motif

Consensus sequence: HBGYGTGTGTGCVRVD

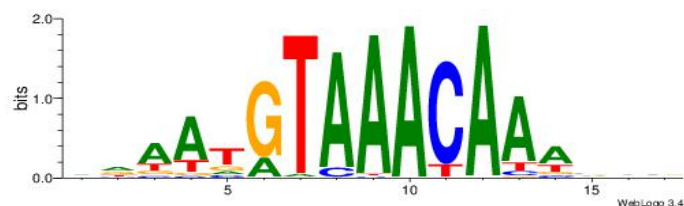


Motif ID: [UP00025](#)  
 Motif name: Foxk1\_primary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Backward  
 Position number: 6  
 Number of overlap: 5  
 Similarity score: 0.00605402

Alignment:  
 DDAATGTAAACAAVVB  
 -----AMACA-----

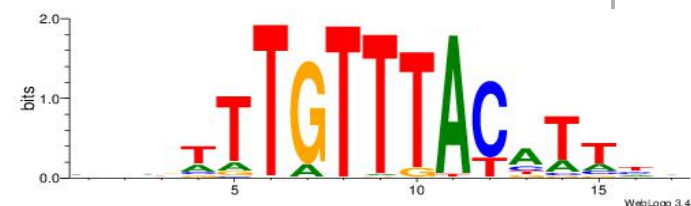
Original motif

Consensus sequence: DDAATGTAAACAAVVB



Reverse complement motif

Consensus sequence: BBVTTTGTTTACATTDD



Motif ID: [UP00041](#)

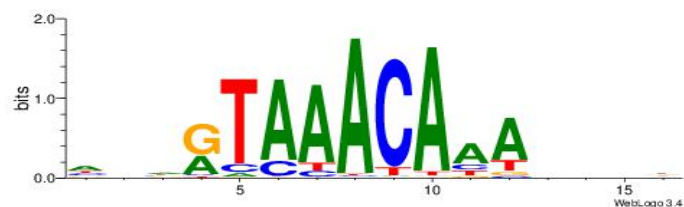
Motif name: Foxj1\_primary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Forward  
 Position number: 6  
 Number of overlap: 5  
 Similarity score: 0.00753267

#### Alignment:

HDHRTAAACAAHDDD  
 -----AMACA-----

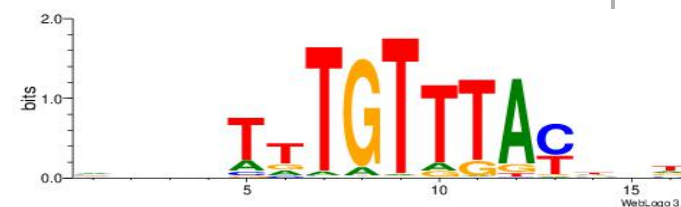
#### Original motif

Consensus sequence: HDHRTAAACAAHDDD



#### Reverse complement motif

Consensus sequence: DDDHTTTGTTTAMHDDH



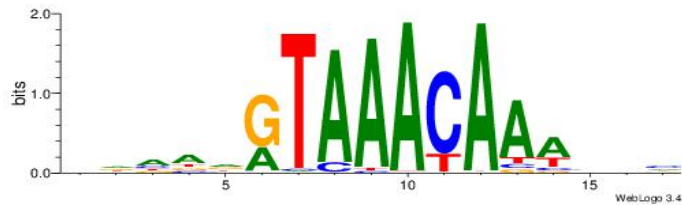

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Motif ID: [UP00039](#)  
 Motif name: Foxj3\_primary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Forward  
 Position number: 8  
 Number of overlap: 5

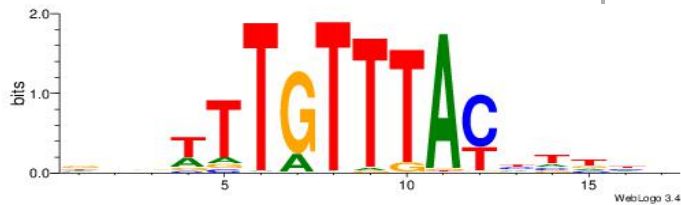
Similarity score: 0.00965634

Alignment:  
HDHADGTAAACAAVVH  
-----AMACA-----

Original motif  
Consensus sequence: HDHADGTAAACAAVVH



Reverse complement motif  
Consensus sequence: DVVTTTGTTCACDTHDH

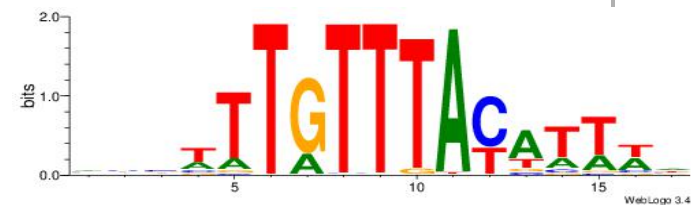
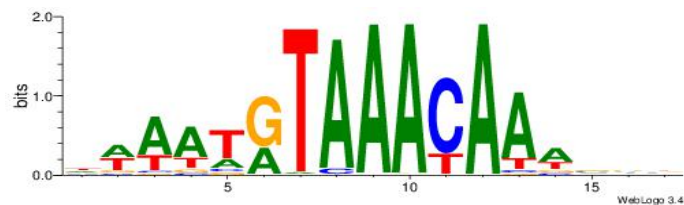


Motif ID: [UP00061](#)  
Motif name: Foxl1\_primary  
Species: Mus musculus  
Matching format of first motif: Original Motif  
Matching format of second motif: Original Motif  
Direction: Forward  
Position number: 8  
Number of overlap: 5  
Similarity score: 0.00989492

Alignment:  
DWAATRTAAACAAWVVB  
-----AMACA-----

Original motif  
Consensus sequence: DWAATRTAAACAAWVVB

Reverse complement motif  
Consensus sequence: VVVWTTGTTTAMATTWD



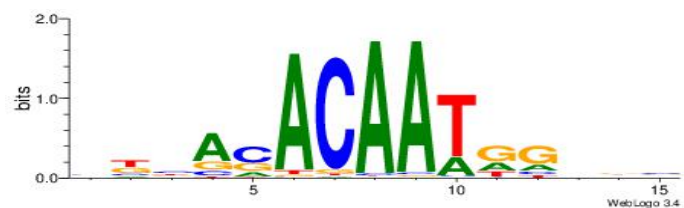
Motif ID: [UP00004](#)  
 Motif name: Sox14\_secondary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Backward  
 Position number: 4  
 Number of overlap: 5  
 Similarity score: 0.0116453

#### Alignment:

BBDCMATTGTSTBRB  
 -----TGTRT---

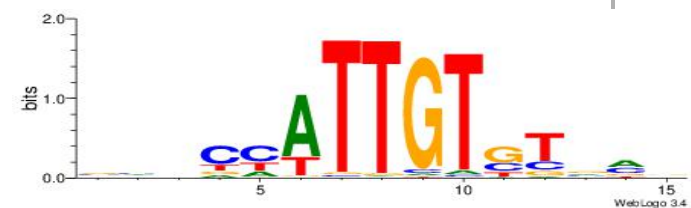
#### Original motif

Consensus sequence: BKBASACAATRGHBB



#### Reverse complement motif

Consensus sequence: BBDCMATTGTSTBRB



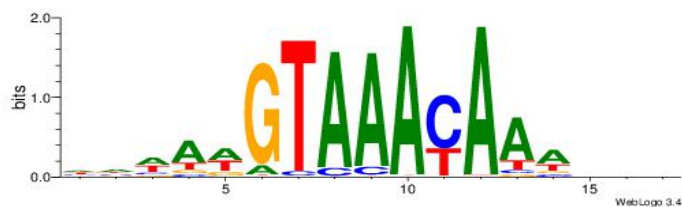
Motif ID: [UP00073](#)  
 Motif name: Foxa2\_primary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Backward  
 Position number: 6  
 Number of overlap: 5  
 Similarity score: 0.0143122

Alignment:

HHWAWGTAAAYAAVDB  
 -----AMACA-----

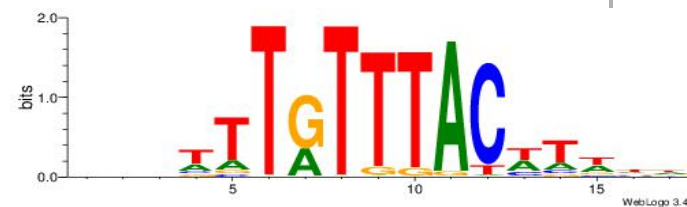
Original motif

Consensus sequence: HHWAWGTAAAYAAVDB



Reverse complement motif

Consensus sequence: BDVTTTKTTTACWTWHH



Motif ID: [UP00026](#)  
 Motif name: Zscan4\_secondary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Forward  
 Position number: 6

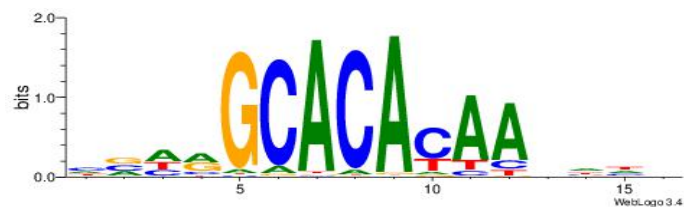
Number of overlap: 5  
Similarity score: 0.0153228

Alignment:

BHHHTTGTGTGCKHVD  
-----TGTRT-----

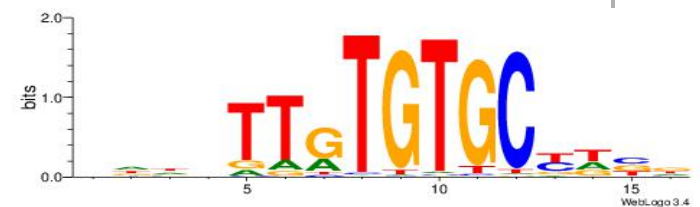
Original motif

Consensus sequence: HVHRGCACACAAHHHV



Reverse complement motif

Consensus sequence: BHHHTTGTGTGCKHVD



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Motif ID: [UP00011](#)  
Motif name: Irf6\_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: 5  
Similarity score: 0.024195

Alignment:

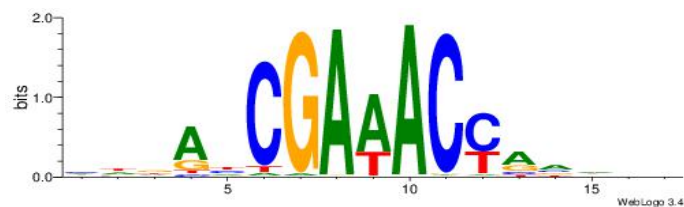
DHDBTKGTTTCGHTHDD  
-----TGTRT-----

Original motif

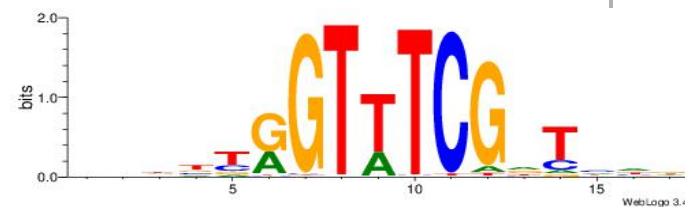
Reverse complement motif



Consensus sequence: HDDAHCGAAACYAVDDD



Consensus sequence: DHDBTKGTTTCGHTHDD

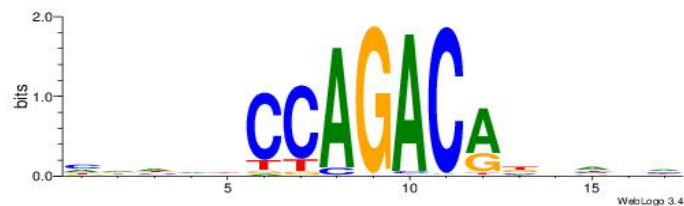


Motif ID: [UP000000](#)  
Motif name: Smad3\_primary  
Species: Mus musculus  
Matching format of first motif: Original Motif  
Matching format of second motif: Original Motif  
Direction: Forward  
Position number: 8  
Number of overlap: 5  
Similarity score: 0.0255974

Alignment:  
HDHDDCCAGACABBHVH  
-----AMACA-----

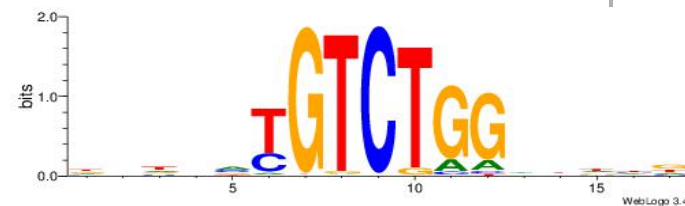
Original motif

Consensus sequence: HDHDDCCAGACABBHVH



Reverse complement motif

Consensus sequence: HVHBVTGTCTGGDDHDD



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

Original motif

Consensus sequence: AGSCWGG



Reverse complement motif

Consensus sequence: CCWGSCT



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

|                                  |                         |
|----------------------------------|-------------------------|
| Motif ID:                        | <a href="#">UP00035</a> |
| Motif name:                      | Hic1_primary            |
| 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:               | 7                       |
| Similarity score:                | 0                       |

Alignment:

DDBHGGTTGGCATVBD

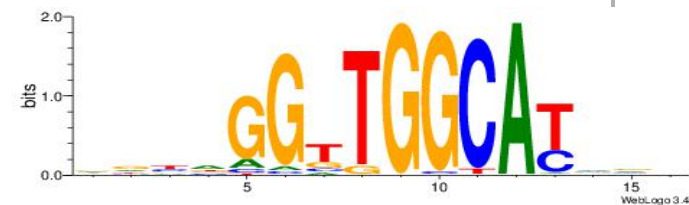
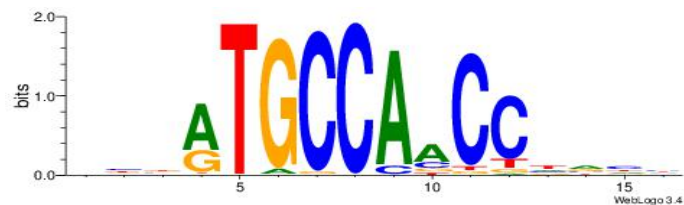
---AGSCWGG-----

Original motif

Consensus sequence: DBBATGCCAACCHVHH

Reverse complement motif

Consensus sequence: DDBHGGTTGGCATVBD

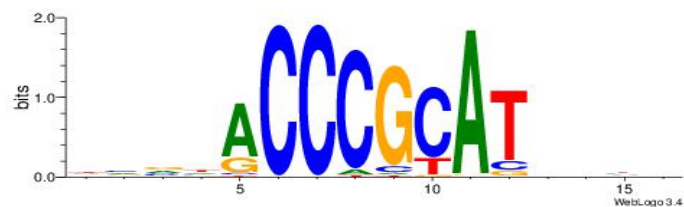


Motif ID: [UP00070](#)  
 Motif name: Gcm1\_primary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Reverse Complement  
 Direction: Forward  
 Position number: 5  
 Number of overlap: 7  
 Similarity score: 0.00560414

Alignment:  
 DHDVATGCGGGTHVVH  
 ----AGSCWGG-----

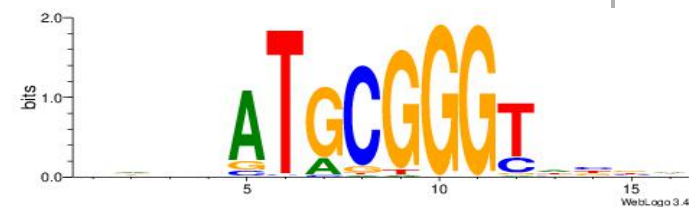
Original motif

Consensus sequence: HVVHACCCGCATVDHD



Reverse complement motif

Consensus sequence: DHDVATGCGGGTHVVH



Motif ID: [UP00095](#)

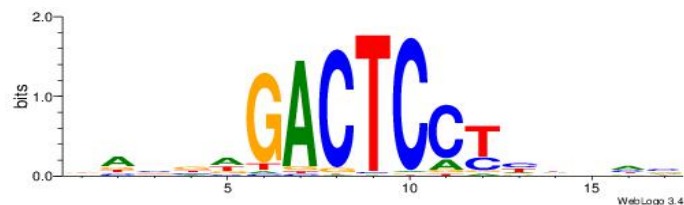
Motif name: Zfp691\_secondary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Original Motif  
 Direction: Forward  
 Position number: 3  
 Number of overlap: 7  
 Similarity score: 0.0109149

#### Alignment:

DABBWGACTCCTHDVHV  
 --CCWGSCT-----

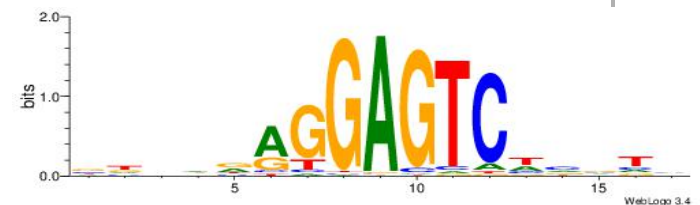
#### Original motif

Consensus sequence: DABBWGACTCCTHDVHV



#### Reverse complement motif

Consensus sequence: VHBDDAGGAGTCWBBTD




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Motif ID: [UP00006](#)  
 Motif name: Zic3\_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: 7

Similarity score: 0.0109242

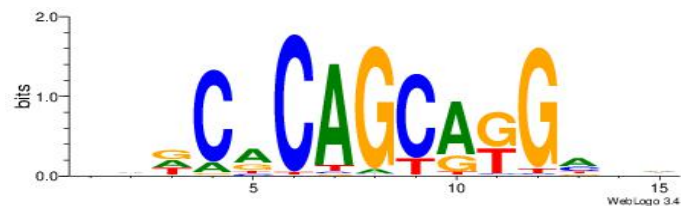
Alignment:

DVHCYTGCTGTGHDH

--CCWGSCT-----

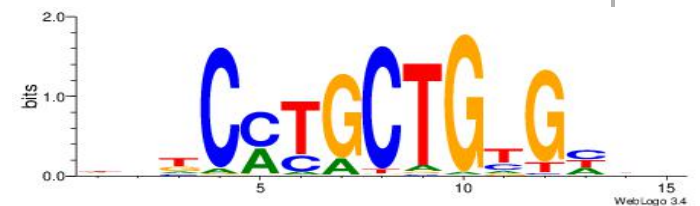
Original motif

Consensus sequence: DDDCACAGCAKGHVD



Reverse complement motif

Consensus sequence: DVHCYTGCTGTGHDH



Motif ID: [UP00000](#)  
Motif name: Smad3\_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: 7  
Similarity score: 0.0114503

Alignment:

HDHDDCCAGACABBHVH

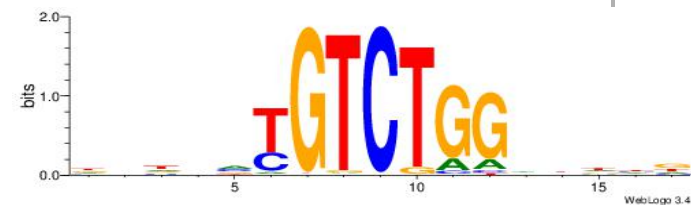
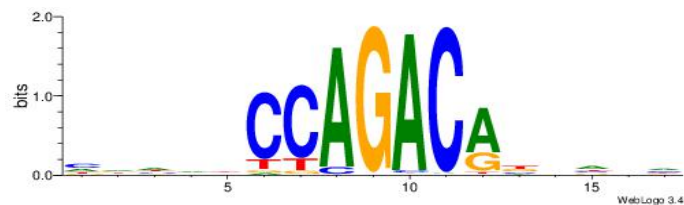
-----CCWGSCT-----

Original motif

Consensus sequence: HDHDDCCAGACABBHVH

Reverse complement motif

Consensus sequence: HVHBVTGTCTGGDDHDD



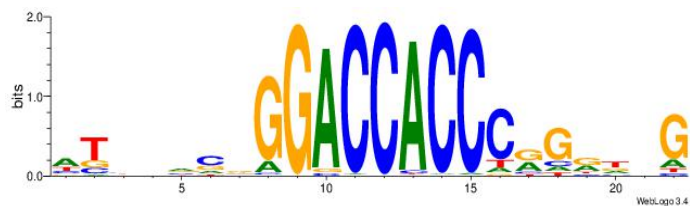
Motif ID: [UP00539](#)  
 Motif name: Gli2\_v015681\_primary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Reverse Complement  
 Direction: Forward  
 Position number: 6  
 Number of overlap: 7  
 Similarity score: 0.0115258

#### Alignment:

CBDMCMGGGTGGTCCHVBVAH  
 -----AGSCWGG-----

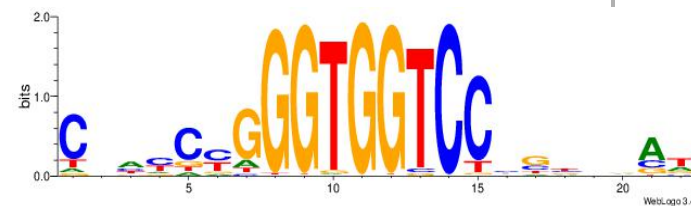
#### Original motif

Consensus sequence: HTBVVVDGGACCACCCRGRDBG



#### Reverse complement motif

Consensus sequence: CBDMCMGGGTGGTCCHVBVAH



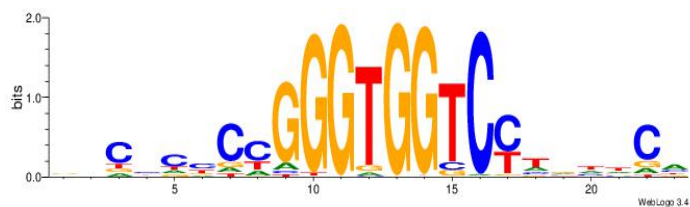
Motif ID: [UP00538](#)  
 Motif name: Gli1\_v016060\_primary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Backward  
 Position number: 8  
 Number of overlap: 7  
 Similarity score: 0.0117486

Alignment:

HGDHVKHGACCAACCGGBGBGDB  
 -----CCWGSCT-----

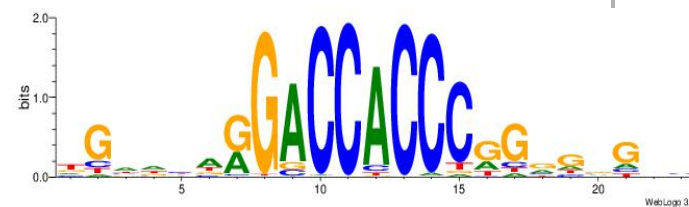
Original motif

Consensus sequence: BHCBCBCCGGGTGGTCYHVDCH



Reverse complement motif

Consensus sequence: HGDHVKHGACCAACCGGBGBGDB



Motif ID: [UP00540](#)  
 Motif name: Gli3\_v016060\_primary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Reverse Complement  
 Direction: Forward  
 Position number: 6

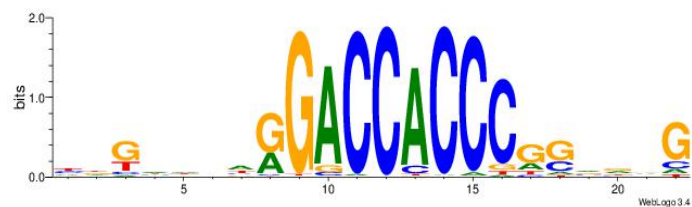
Number of overlap: 7  
Similarity score: 0.0131676

Alignment:

CVHBSCGGGTGGTCMHVHHCDH  
-----AGSCWGG-----

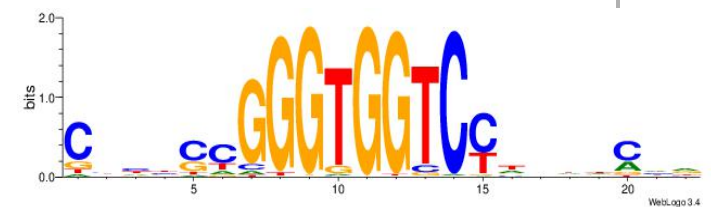
Original motif

Consensus sequence: HDGHHBHRGACCACCCGSVDVG



Reverse complement motif

Consensus sequence: CVHBSCGGGTGGTCMHVHHCDH



---

Motif ID: [UP00081](#)  
Motif name: Mybl1\_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: 7  
Similarity score: 0.0136026

Alignment:

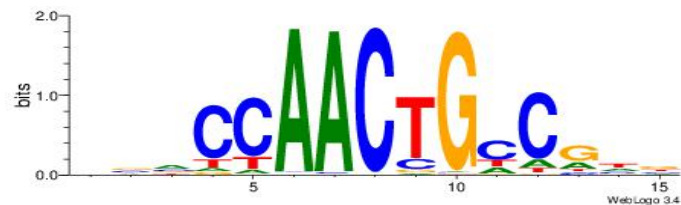
BHCGGCAGTTGGBBB  
--AGSCWGG-----

Original motif

Reverse complement motif



Consensus sequence: BBVCCAAC TGCCGHB



Consensus sequence: BHCGGCAGTTGGBBB



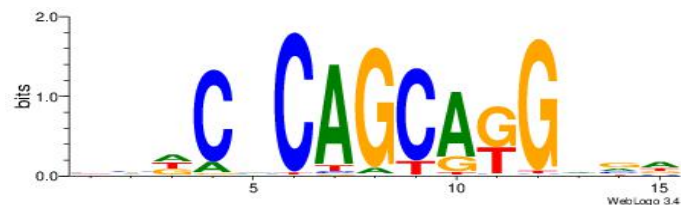
Motif ID: [UP00057](#)  
 Motif name: Zic2\_secondary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Backward  
 Position number: 7  
 Number of overlap: 7  
 Similarity score: 0.0139558

Alignment:

DVBCYTGCTGBGDDD  
 --CCWGSCT-----

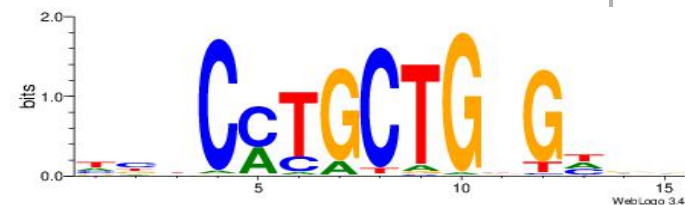
Original motif

Consensus sequence: HHDCVCAGCAKGVVD



Reverse complement motif

Consensus sequence: DVBCYTGCTGBGDDD



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

Original motif

Consensus sequence: CTCTGY



Reverse complement motif

Consensus sequence: KCAGAG



### Best Matches for Motif ID 4 (Highest to Lowest)

|                                  |                         |
|----------------------------------|-------------------------|
| Motif ID:                        | <a href="#">UP00031</a> |
| Motif name:                      | Zbtb3_primary           |
| 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:               | 6                       |
| Similarity score:                | 0                       |

Alignment:

BBBAVTGCAGTGBBVDD

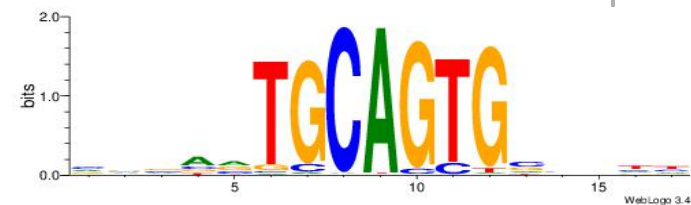
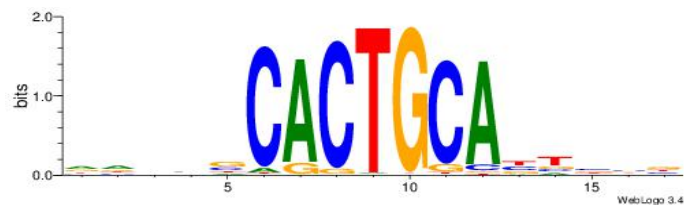
-----KCAGAG-----

Original motif

Consensus sequence: DDBBBCACTGCABTBBB

Reverse complement motif

Consensus sequence: BBBAVTGCAGTGBBVDD

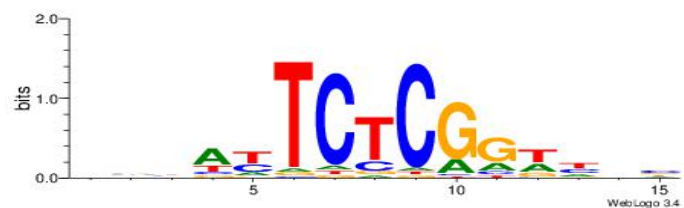


Motif ID: [UP00018](#)  
 Motif name: Irf4\_secondary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Backward  
 Position number: 7  
 Number of overlap: 6  
 Similarity score: 0.00610915

Alignment:  
 BHHWCCGAGAMTVVB  
 ---KCAGAG-----

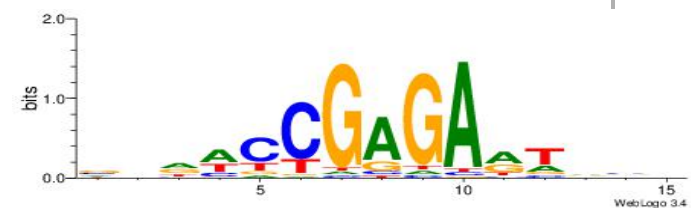
Original motif

Consensus sequence: VVBAYTCTCGGWHDB



Reverse complement motif

Consensus sequence: BHHWCCGAGAMTVVB



Motif ID: [UP00095](#)

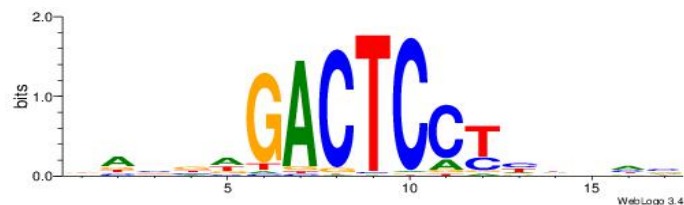
Motif name: Zfp691\_secondary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Forward  
 Position number: 5  
 Number of overlap: 6  
 Similarity score: 0.00648219

Alignment:

VHBDDAGGAGTCWBBTD  
 ----KCAGAG-----

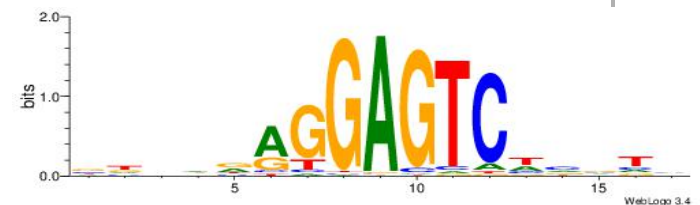
Original motif

Consensus sequence: DABBWGACTCCTHDVHV



Reverse complement motif

Consensus sequence: VHBDDAGGAGTCWBBTD




---

Motif ID: [UP00006](#)  
 Motif name: Zic3\_secondary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Reverse Complement  
 Direction: Backward  
 Position number: 3  
 Number of overlap: 6

Similarity score: 0.00853125

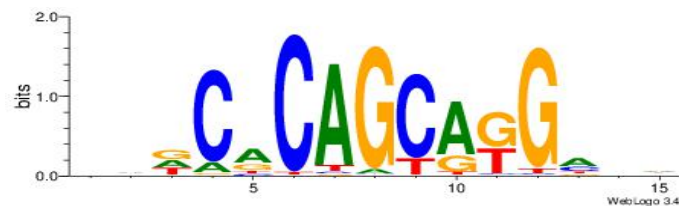
Alignment:

DVHCYTGCTGTGHDH

-----CTCTGY--

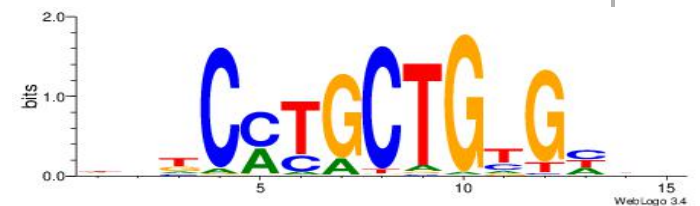
Original motif

Consensus sequence: DDDCACAGCAKGHVD



Reverse complement motif

Consensus sequence: DVHCYTGCTGTGHDH



Motif ID: [UP00007](#)

Motif name: Egr1\_secondary

Species: Mus musculus

Matching format of first motif: Original Motif

Matching format of second motif: Reverse Complement

Direction: Backward

Position number: 2

Number of overlap: 6

Similarity score: 0.00895004

Alignment:

BHHDTCCTCACTCBDBV

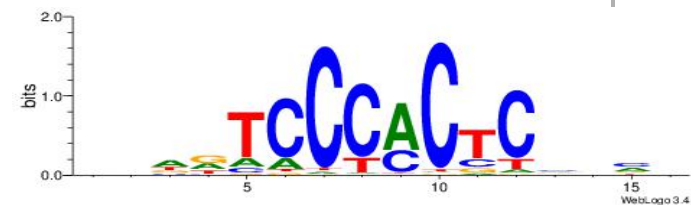
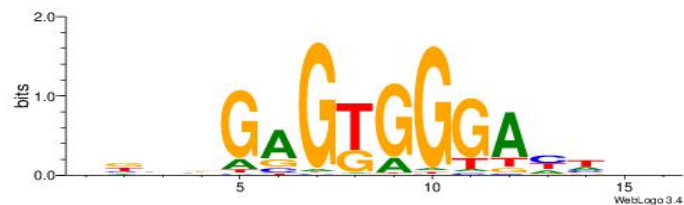
-----CTCTGY--

Original motif

Consensus sequence: BBHBGAGTGGGAHHDB

Reverse complement motif

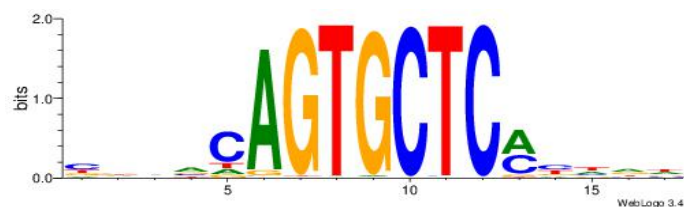
Consensus sequence: BHHDTCCTCACTCBDBV



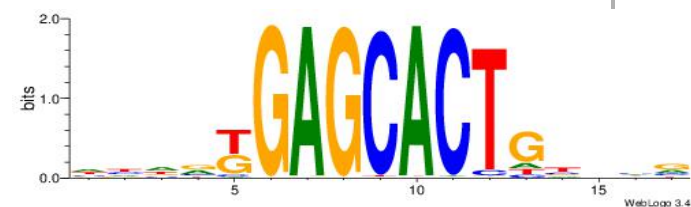
Motif ID: [UP00095](#)  
 Motif name: Zfp691\_primary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Reverse Complement  
 Direction: Forward  
 Position number: 9  
 Number of overlap: 6  
 Similarity score: 0.00955889

Alignment:  
 DDHBYGAGCACTGBHHB  
 -----CTCTGY---

Original motif  
 Consensus sequence: BDHVCAGTGCTCMBHDD



Reverse complement motif  
 Consensus sequence: DDHBYGAGCACTGBHHB



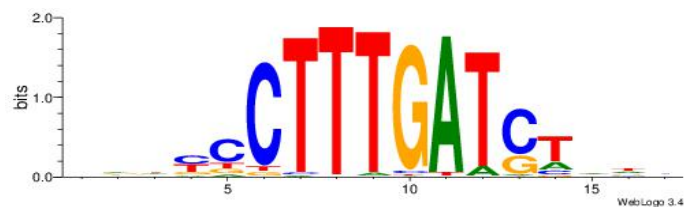
Motif ID: [UP00067](#)  
 Motif name: Lef1\_primary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Backward  
 Position number: 6  
 Number of overlap: 6  
 Similarity score: 0.0106184

Alignment:

VDDAGATCAAAGGKDDD  
 -----KCAGAG-----

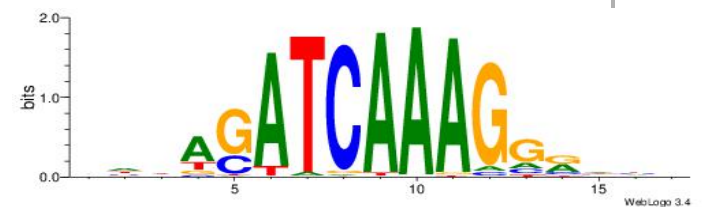
Original motif

Consensus sequence: DDDYCCTTTGATCTDDV



Reverse complement motif

Consensus sequence: VDDAGATCAAAGGKDDD



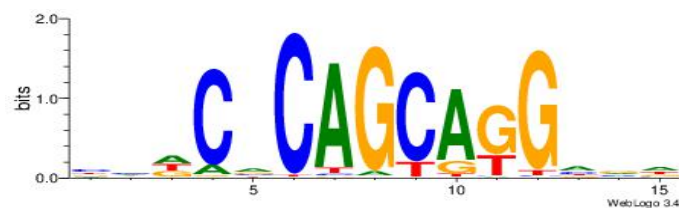
Motif ID: [UP00102](#)  
 Motif name: Zic1\_secondary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Original Motif  
 Direction: Backward  
 Position number: 8

Number of overlap: 6  
Similarity score: 0.0122635

Alignment:  
BHDCVCAGCAGGHVD  
--KCAGAG-----

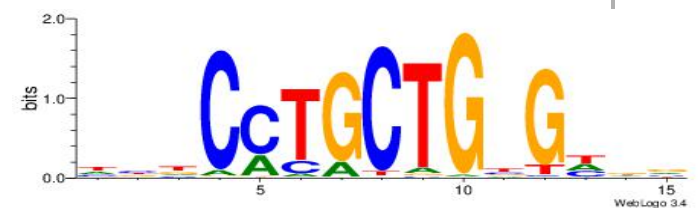
Original motif

Consensus sequence: BHDCVCAGCAGGHVD



Reverse complement motif

Consensus sequence: DVHCCTGCTGBGDDDB



Motif ID: [UP00083](#)  
Motif name: Tcf7l2\_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: 0.0131237

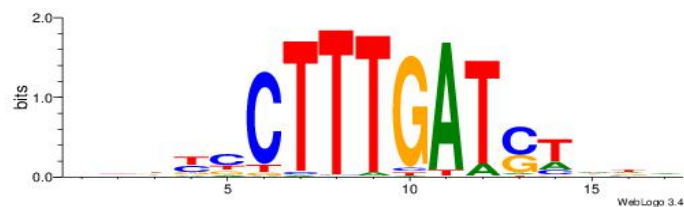
Alignment:  
BDDASATCAAAGMDDD  
-----KCAGAG-----

Original motif

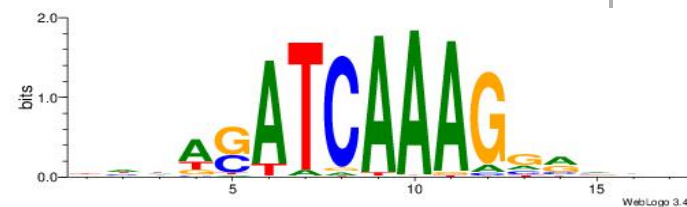
Reverse complement motif



Consensus sequence: DDDYCCTTTGATSTDDV



Consensus sequence: BDDASATCAAAGGMDDD



Motif ID: [UP00057](#)  
Motif name: Zic2\_secondary  
Species: Mus musculus  
Matching format of first motif: Reverse Complement  
Matching format of second motif: Original Motif  
Direction: Forward  
Position number: 3  
Number of overlap: 6  
Similarity score: 0.0136526

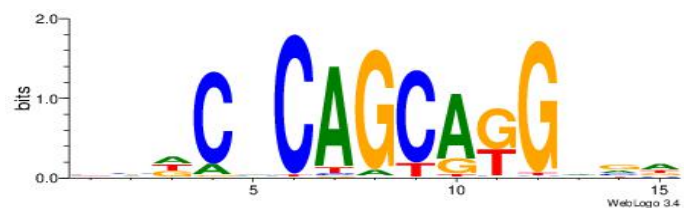
Alignment:

HHDCVCAGCAKGVVD

--KCAGAG-----

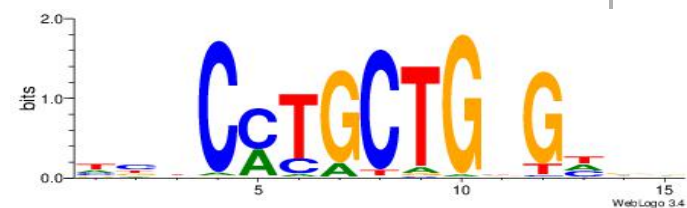
Original motif

Consensus sequence: HHDCVCAGCAKGVVD



Reverse complement motif

Consensus sequence: DVBCYTGCTGBGDDD



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

Original motif

Consensus sequence: ATKTM



Reverse complement motif

Consensus sequence: RARAT



### Best Matches for Motif ID 5 (Highest to Lowest)

|                                  |                         |
|----------------------------------|-------------------------|
| Motif ID:                        | <a href="#">UP00080</a> |
| Motif name:                      | Gata5_secondary         |
| Species:                         | Mus musculus            |
| Matching format of first motif:  | Reverse Complement      |
| Matching format of second motif: | Original Motif          |
| Direction:                       | Backward                |
| Position number:                 | 9                       |
| Number of overlap:               | 5                       |
| Similarity score:                | 0                       |

Alignment:

VVBHRAGATATCWDHBB

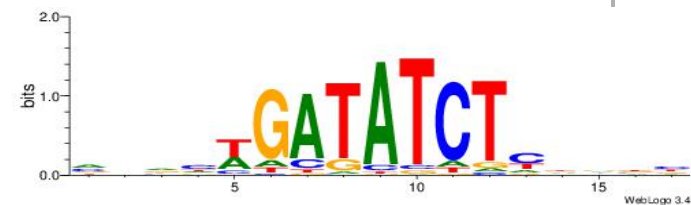
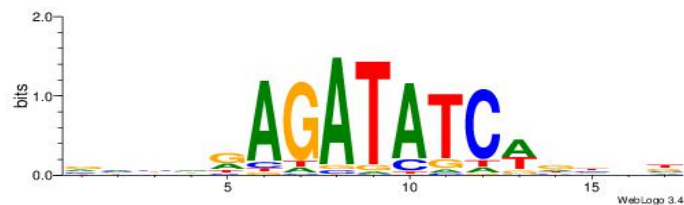
-----RARAT-----

Original motif

Consensus sequence: VVBHRAGATATCWDHBB

Reverse complement motif

Consensus sequence: VVHHWGATATCTMHBBV

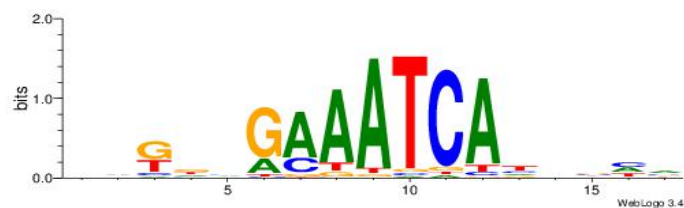


Motif ID: [UP00148](#)  
 Motif name: Hdx  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Original Motif  
 Direction: Backward  
 Position number: 8  
 Number of overlap: 5  
 Similarity score: 0.00279496

Alignment:  
 DDKDHGAAATCAHHBH  
 -----RARAT-----

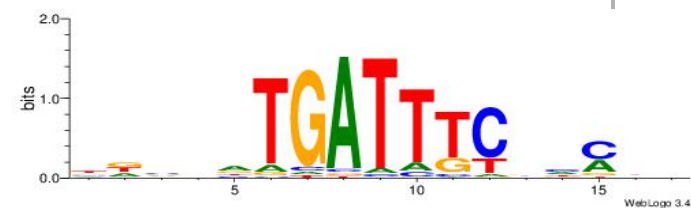
Original motif

Consensus sequence: DDKDHGAAATCAHHBH



Reverse complement motif

Consensus sequence: BDBDHTGATTTCDHYD



Motif ID: [UP00032](#)

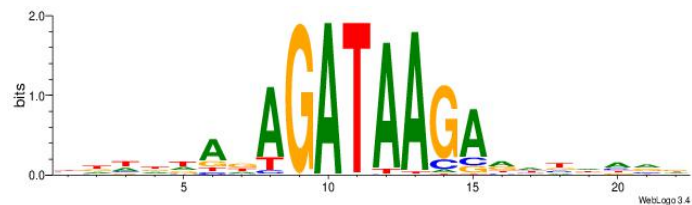
Motif name: Gata3\_primary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Original Motif  
 Direction: Backward  
 Position number: 12  
 Number of overlap: 5  
 Similarity score: 0.00967655

#### Alignment:

BDHDDADAGATAAGADHBDHVD  
 -----RARAT-----

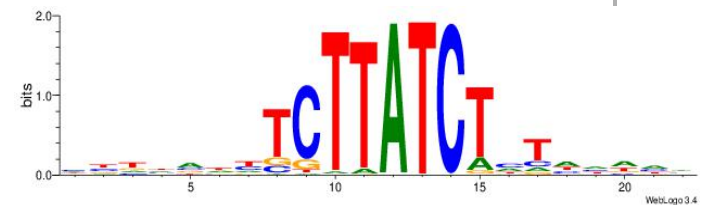
#### Original motif

Consensus sequence: BDHDDADAGATAAGADHBDHVD



#### Reverse complement motif

Consensus sequence: HBHDVHDTCTTATCTHTDDHVD




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Motif ID: [UP00250](#)  
 Motif name: Irx5  
 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: 5

Similarity score: 0.0116566

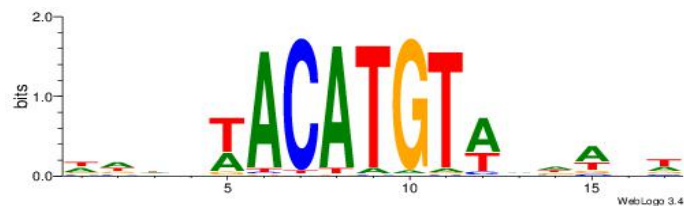
Alignment:

DDDHWACATGTWHDABW

-----ATKTM-----

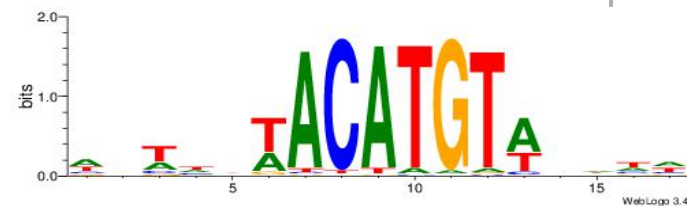
Original motif

Consensus sequence: DDDHWACATGTWHDABW



Reverse complement motif

Consensus sequence: WVTDPWACATGTWHD



Motif ID: [UP00236](#)  
Motif name: Irx2  
Species: Mus musculus  
Matching format of first motif: Original Motif  
Matching format of second motif: Original Motif  
Direction: Backward  
Position number: 6  
Number of overlap: 5  
Similarity score: 0.0120196

Alignment:

WDDDTACATGTADDWBW

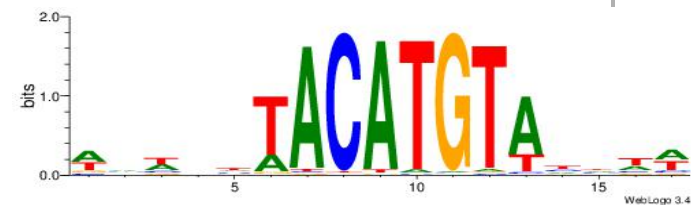
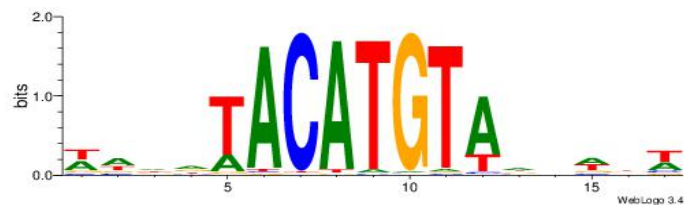
-----ATKTM-----

Original motif

Consensus sequence: WDDDTACATGTADDWBW

Reverse complement motif

Consensus sequence: WVWDDTACATGTADDW

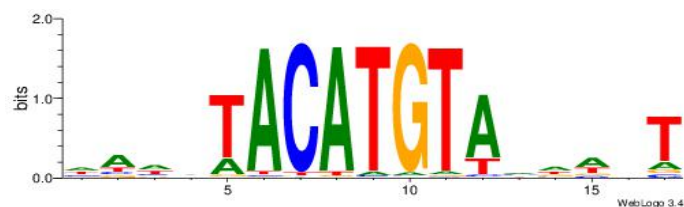


Motif ID: [UP00150](#)  
 Motif name: Irx6  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Backward  
 Position number: 6  
 Number of overlap: 5  
 Similarity score: 0.0120601

Alignment:  
 HAHDTACATGTAVDWHT  
 -----ATKTM-----

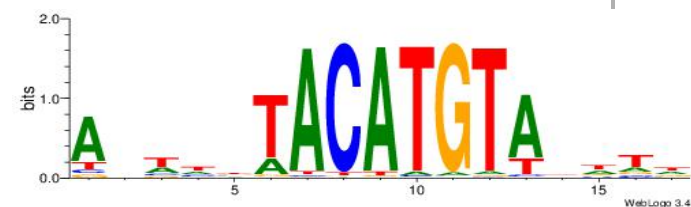
Original motif

Consensus sequence: HAHDTACATGTAVDWHT



Reverse complement motif

Consensus sequence: AHWDBTACATGTADHTH

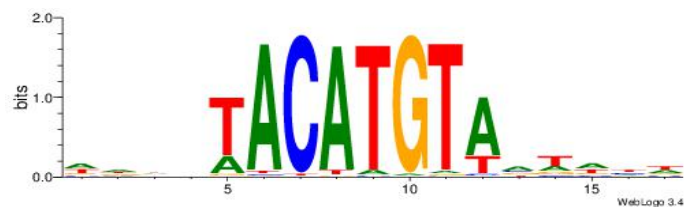


Motif ID: [UP00223](#)  
 Motif name: Irx3\_2226.1  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Forward  
 Position number: 8  
 Number of overlap: 5  
 Similarity score: 0.0124884

Alignment:  
 DDDHTACATGTAVWDHD  
 -----ATKTM-----

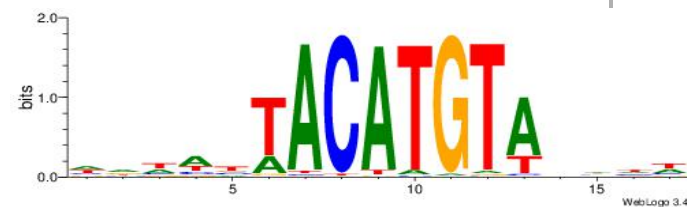
Original motif

Consensus sequence: DDDHTACATGTAVWDHD



Reverse complement motif

Consensus sequence: DHDWBTACATGTAHDDD



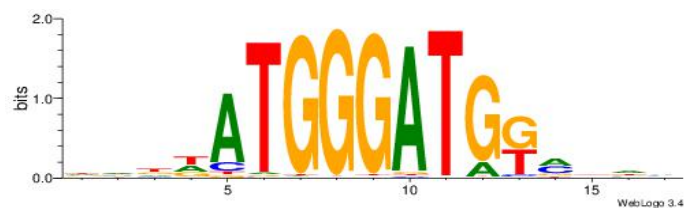
Motif ID: [UP00033](#)  
 Motif name: Zfp410\_primary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Forward  
 Position number: 10

Number of overlap: 5  
Similarity score: 0.0150044

Alignment:  
DVDDATGGGATGKMDDV  
-----ATKTM----

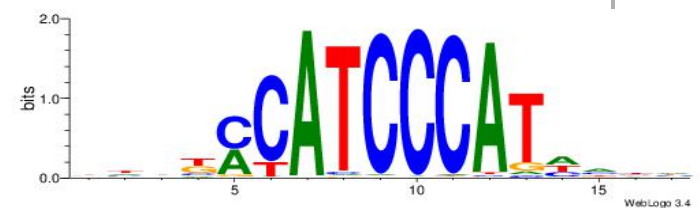
Original motif

Consensus sequence: DVDDATGGGATGKMDDV



Reverse complement motif

Consensus sequence: BDDYYCATCCCATDDBD



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Motif ID: [UP00223](#)  
Motif name: Irx3\_0920.1  
Species: Mus musculus  
Matching format of first motif: Original Motif  
Matching format of second motif: Original Motif  
Direction: Backward  
Position number: 6  
Number of overlap: 5  
Similarity score: 0.0150192

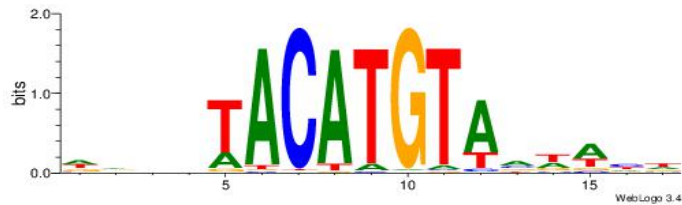
Alignment:  
DDDDTACATGTAVWWHD  
-----ATKTM-----

Original motif

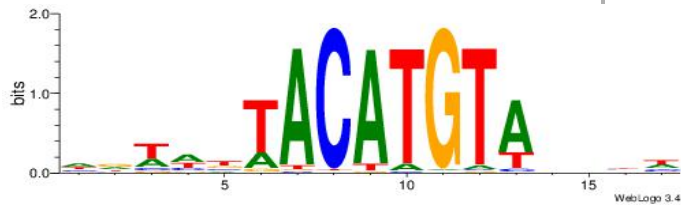
Reverse complement motif



Consensus sequence: DDDDTACATGTAVVWHHD



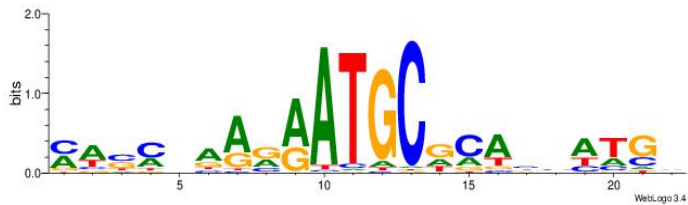
Consensus sequence: DDWWBTACATGTADDDD



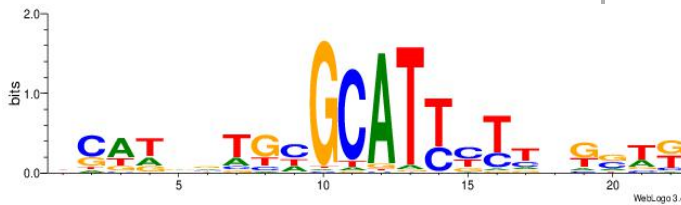
Motif ID: [UP00528](#)  
Motif name: Foxm1\_secondary  
Species: Mus musculus  
Matching format of first motif: Reverse Complement  
Matching format of second motif: Original Motif  
Direction: Backward  
Position number: 12  
Number of overlap: 5  
Similarity score: 0.0166075

Alignment:  
MWSMBAARRATGCD CABHATGD  
-----RARAT-----

Original motif  
Consensus sequence: MWSMBAARRATGCD CABHATGD



Reverse complement motif  
Consensus sequence: DCATDBTGHGCATKMTTBRSWR



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

Original motif

Consensus sequence: CMGCRGC



Reverse complement motif

Consensus sequence: GCKGCTG



### Best Matches for Motif ID 6 (Highest to Lowest)

|                                  |                         |
|----------------------------------|-------------------------|
| Motif ID:                        | <a href="#">UP00052</a> |
| Motif name:                      | Osr2_primary            |
| Species:                         | Mus musculus            |
| Matching format of first motif:  | Reverse Complement      |
| Matching format of second motif: | Reverse Complement      |
| Direction:                       | Forward                 |
| Position number:                 | 5                       |
| Number of overlap:               | 7                       |
| Similarity score:                | 0                       |

Alignment:

HHHHGCTACKGTHVHH

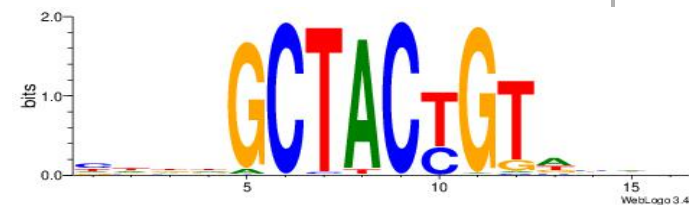
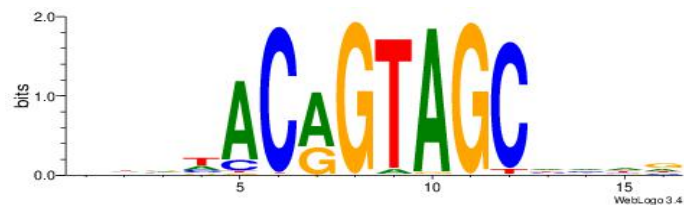
-----GCKGCTG-----

Original motif

Consensus sequence: HHVHACRGTAGCHHHD

Reverse complement motif

Consensus sequence: HHHHGCTACKGTHVHH

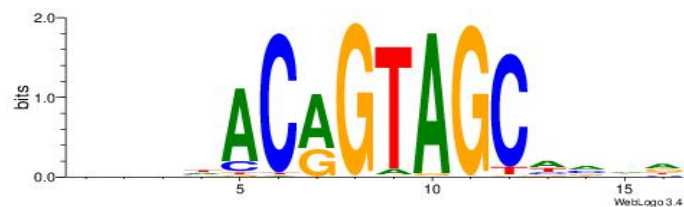


Motif ID: [UP00027](#)  
 Motif name: Osr1\_primary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Backward  
 Position number: 6  
 Number of overlap: 7  
 Similarity score: 0.00108105

Alignment:  
 DHBHGCTACKGTHDHH  
 ----GCKGCTG-----

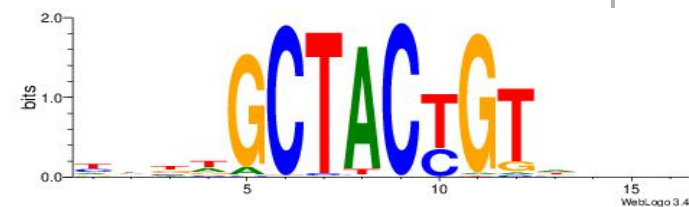
Original motif

Consensus sequence: HHDHACRGTAGCHVHD



Reverse complement motif

Consensus sequence: DHBHGCTACKGTHDHH



Motif ID: [UP00099](#)

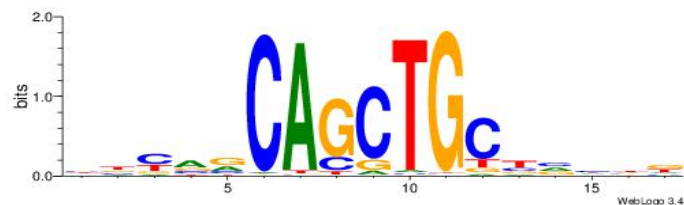
Motif name: Ascl2\_primary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Original Motif  
 Direction: Forward  
 Position number: 8  
 Number of overlap: 7  
 Similarity score: 0.00905497

Alignment:

BBYVVCAGCTGCBVHHD  
 -----GCKGCGY---

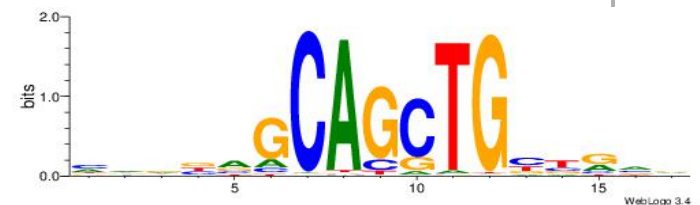
Original motif

Consensus sequence: BBYVVCAGCTGCBVHHD



Reverse complement motif

Consensus sequence: HHDVVCAGCTGVBKVB




---

Motif ID: [UP00102](#)  
 Motif name: Zic1\_secondary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Forward  
 Position number: 4  
 Number of overlap: 7

Similarity score: 0.0111061

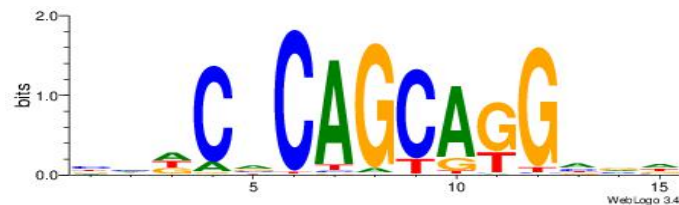
Alignment:

DVHCCTGCTGBGDDDB

---GCKGCTG-----

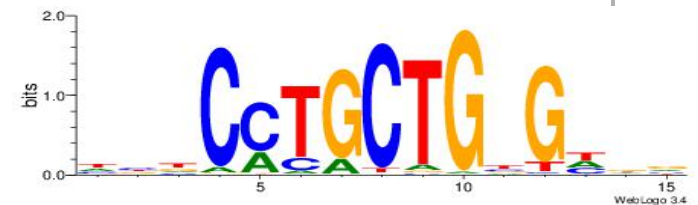
Original motif

Consensus sequence: BHDCVCAGCAGGHVD



Reverse complement motif

Consensus sequence: DVHCCTGCTGBGDDDB



Motif ID: [UP00057](#)  
Motif name: Zic2\_secondary  
Species: Mus musculus  
Matching format of first motif: Original Motif  
Matching format of second motif: Original Motif  
Direction: Forward  
Position number: 6  
Number of overlap: 7  
Similarity score: 0.0126897

Alignment:

HHDCVCAGCAKGVVD

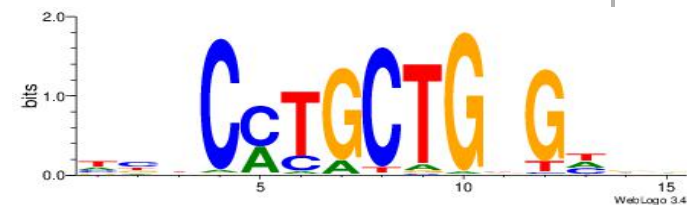
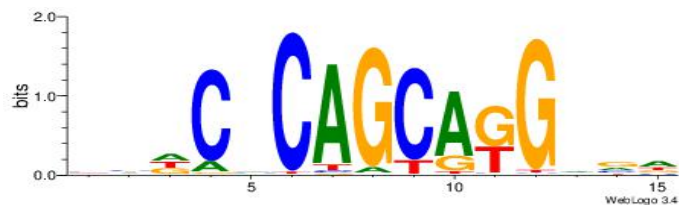
-----CMGCRGC---

Original motif

Consensus sequence: HHDCVCAGCAKGVVD

Reverse complement motif

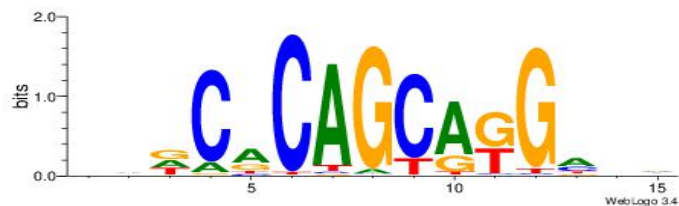
Consensus sequence: DVBCYTGCTGBGDDDD



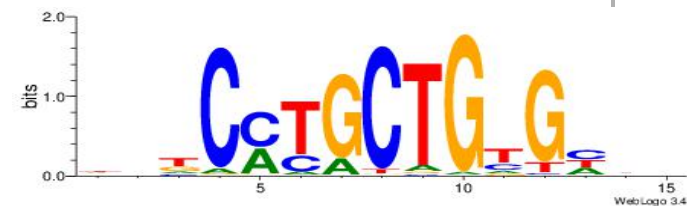
Motif ID: [UP00006](#)  
 Motif name: Zic3\_secondary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Backward  
 Position number: 6  
 Number of overlap: 7  
 Similarity score: 0.0137402

Alignment:  
 DVHCYTGCTGTGHDH  
 ---GCKGCG-----

Original motif  
 Consensus sequence: DDDCACAGCAKGHVD



Reverse complement motif  
 Consensus sequence: DVHCYTGCTGTGHDH



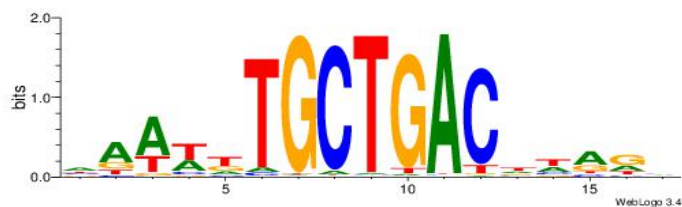
Motif ID: [UP00045](#)  
 Motif name: Mafb\_primary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Reverse Complement  
 Direction: Backward  
 Position number: 4  
 Number of overlap: 7  
 Similarity score: 0.0253076

Alignment:

DMTWDGTCAGCADWTTH  
 -----CMGCRGC----

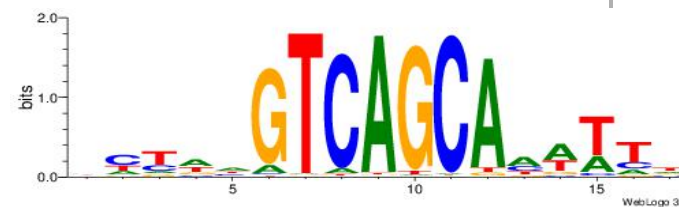
Original motif

Consensus sequence: HAAWDTGCTGACDWARH



Reverse complement motif

Consensus sequence: DMTWDGTCAGCADWTTH



Motif ID: [UP00193](#)  
 Motif name: Rhox11\_1765.2  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Reverse Complement  
 Direction: Forward  
 Position number: 9

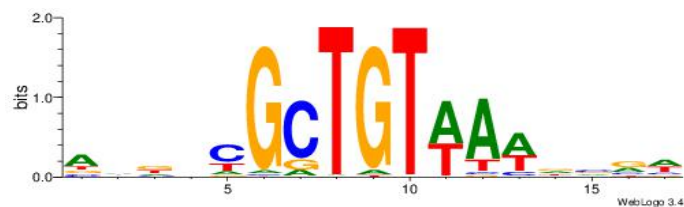
Number of overlap: 7  
Similarity score: 0.0292668

Alignment:

WVHWTWACAGCGBHBT  
-----CMGCRGC--

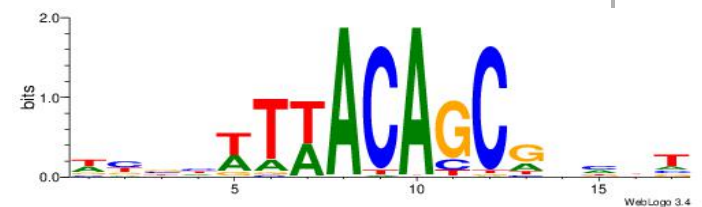
Original motif

Consensus sequence: AVDVCGCTGTAWDVVW



Reverse complement motif

Consensus sequence: WVHWTWACAGCGBHBT



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Motif ID: [UP00193](#)  
Motif name: Rhox11\_2205.1  
Species: Mus musculus  
Matching format of first motif: Original Motif  
Matching format of second motif: Reverse Complement  
Direction: Backward  
Position number: 3  
Number of overlap: 7  
Similarity score: 0.0298083

Alignment:

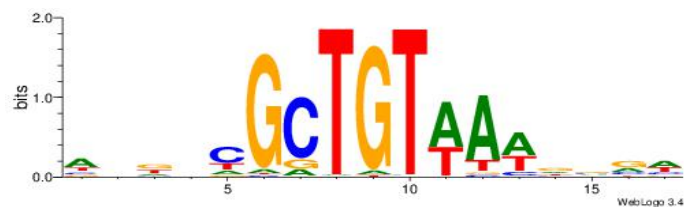
WVHWTWACAGCGHHVT  
-----CMGCRGC--

Original motif

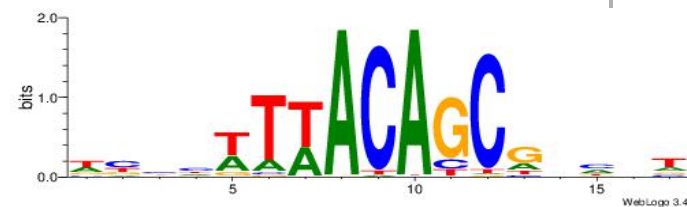
Reverse complement motif



Consensus sequence: AVDHCGCTGTWAWDVVW



Consensus sequence: WVVHWTWACAGCGHHVT



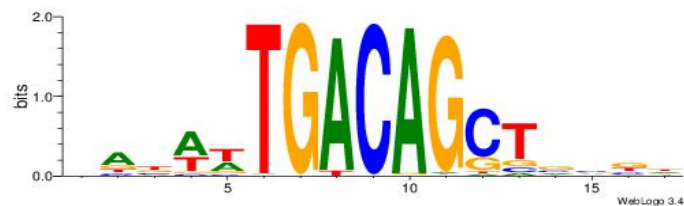
Motif ID: [UP00122](#)  
Motif name: Tgif1  
Species: Mus musculus  
Matching format of first motif: Original Motif  
Matching format of second motif: Original Motif  
Direction: Backward  
Position number: 3  
Number of overlap: 7  
Similarity score: 0.0332976

Alignment:

DABWWTGACAGCTVVBD  
-----CMGCRGC---

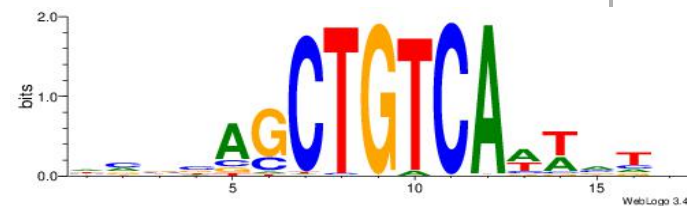
Original motif

Consensus sequence: DABWWTGACAGCTVVBD



Reverse complement motif

Consensus sequence: DBVVAGCTGTCAWWVTH



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

Original motif

Consensus sequence: CCCRCCCC



Reverse complement motif

Consensus sequence: GGGGMGGG



### Best Matches for Motif ID 7 (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: | Reverse Complement      |
| Direction:                       | Forward                 |
| Position number:                 | 4                       |
| Number of overlap:               | 8                       |
| Similarity score:                | 0                       |

Alignment:

DHHDGGGCGRGGKHBH

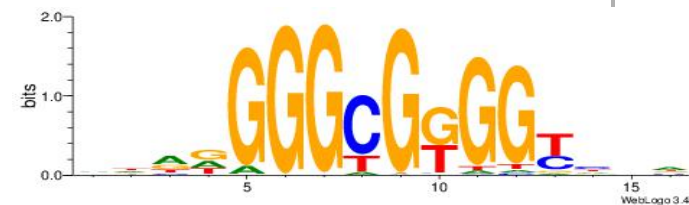
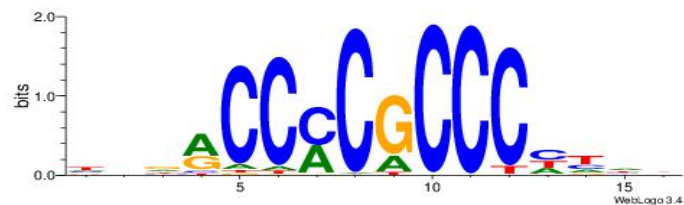
---GGGGMGGG-----

Original motif

Consensus sequence: HBDRCMCGCCCHHHD

Reverse complement motif

Consensus sequence: DHHDGGGCGRGGKHBH

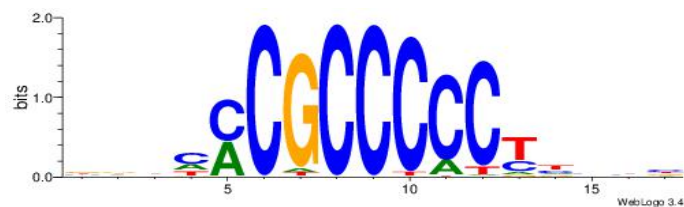


Motif ID: [UP00002](#)  
 Motif name: Sp4\_primary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Forward  
 Position number: 7  
 Number of overlap: 8  
 Similarity score: 0.00490878

Alignment:  
 BVVHAGGGGGCGRDHBB  
 -----GGGGMGGG----

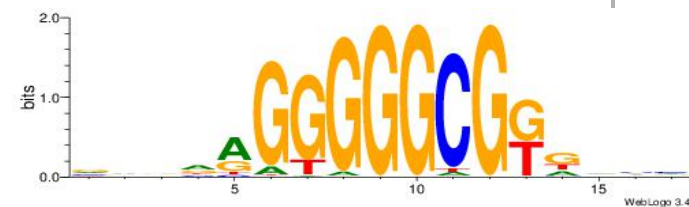
Original motif

Consensus sequence: BDHHMCGCCCCCTHVBB



Reverse complement motif

Consensus sequence: BVVHAGGGGGCGRDHBB



Motif ID: [UP00007](#)

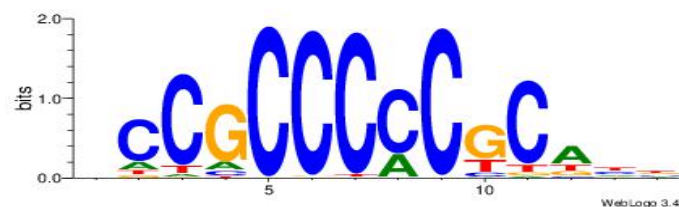
Motif name: Egr1\_primary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Forward  
 Position number: 1  
 Number of overlap: 8  
 Similarity score: 0.0101441

Alignment:

HCCGCCCCCGCAHB  
 CCCRCCCC-----

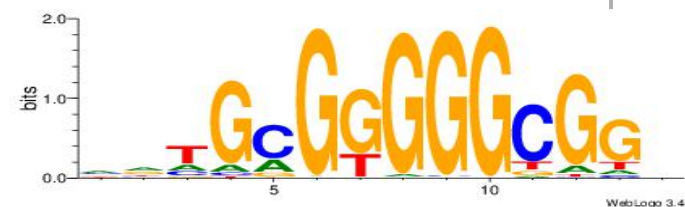
Original motif

Consensus sequence: HCCGCCCCCGCAHB



Reverse complement motif

Consensus sequence: VHTGCGGGGGCGGH




---

Motif ID: [UP00021](#)  
 Motif name: Zfp281\_primary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Forward  
 Position number: 4  
 Number of overlap: 8

Similarity score: 0.0106908

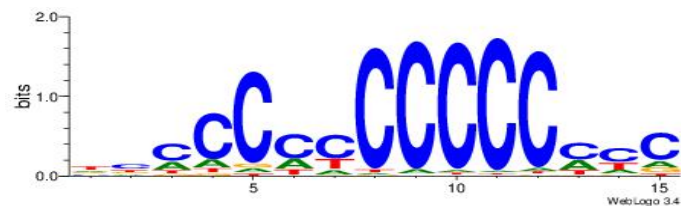
Alignment:

DBCCCCCCCCCMYC

---CCCRCCCC----

Original motif

Consensus sequence: DBCCCCCCCCCMYC



Reverse complement motif

Consensus sequence: GKRGGGGGGGGGGBD



Motif ID: [UP00043](#)  
Motif name: Bcl6b\_secondary  
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: 8  
Similarity score: 0.0152681

Alignment:

HBBBCCGCCCCWHHHV

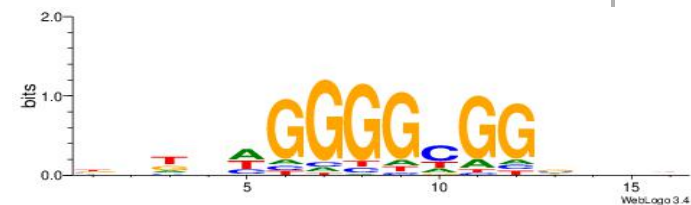
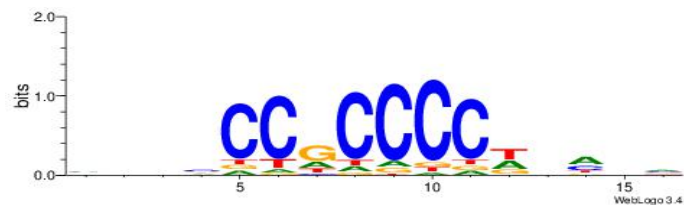
---CCCRCCCC-----

Original motif

Consensus sequence: HBBBCCGCCCCWHHHV

Reverse complement motif

Consensus sequence: BHHHWGGGGCGGBBVH



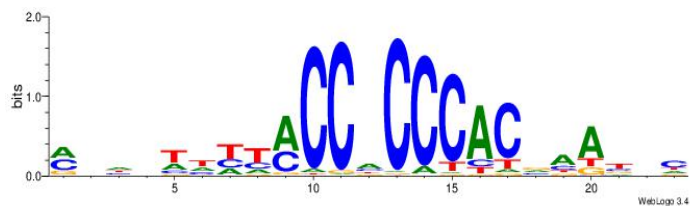
Motif ID: [UP00538](#)  
 Motif name: Gli1\_v015681\_secondary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Forward  
 Position number: 9  
 Number of overlap: 8  
 Similarity score: 0.0252184

#### Alignment:

MHHHWHYTMCCCHCCCACVAABVH  
 -----CCCRCCCC-----

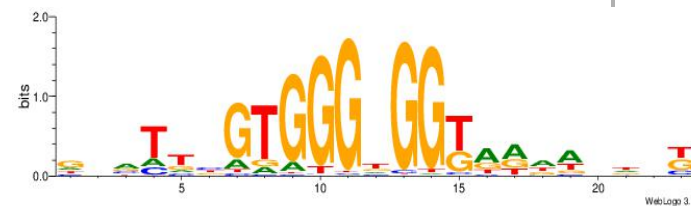
#### Original motif

Consensus sequence: MHHHWHYTMCCCHCCCACVAABVH



#### Reverse complement motif

Consensus sequence: DVVTTVGTGGGHGGYAMHWHHHY



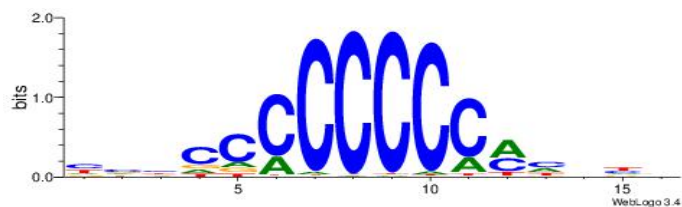
Motif ID: [UP00022](#)  
 Motif name: Zfp740\_primary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Forward  
 Position number: 7  
 Number of overlap: 8  
 Similarity score: 0.0258528

Alignment:

BHHDYGGGGGGGGBVD  
 -----GGGGMGGG--

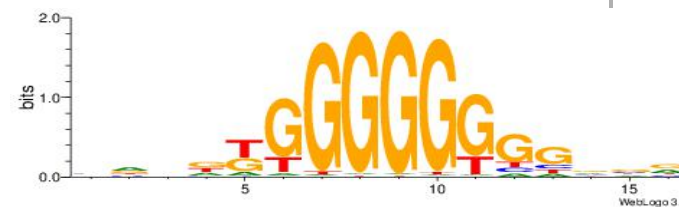
Original motif

Consensus sequence: HVBCCCCCCCCMHHHB



Reverse complement motif

Consensus sequence: BHHDYGGGGGGGGBVD



Motif ID: [UP00007](#)  
 Motif name: Egr1\_secondary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Reverse Complement  
 Direction: Forward  
 Position number: 6

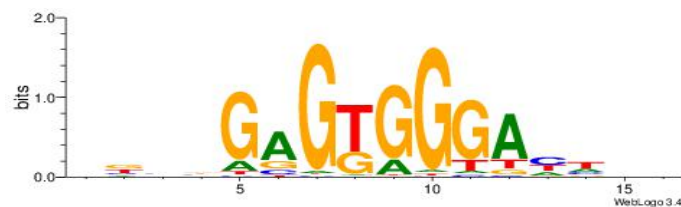
Number of overlap: 8  
Similarity score: 0.0318239

Alignment:

BHHDTCCTCACTCBDBV  
-----CCCRCCCC---

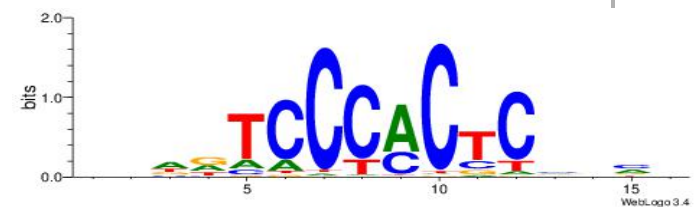
Original motif

Consensus sequence: BBHBGAGTGGGAHHDB



Reverse complement motif

Consensus sequence: BHHDTCCTCACTCBDBV



Motif ID: [UP00538](#)  
Motif name: Gli1\_v016060\_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: 0.0333599

Alignment:

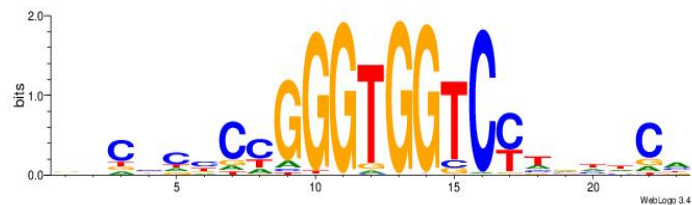
HGDHVHKGACCAACCGGBGBGDB  
-----CCCRCCCC-----

Original motif

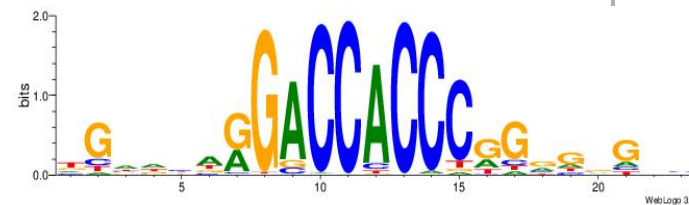
Reverse complement motif



Consensus sequence: BHCBCBCCGGGTGGTCYHVDCH



Consensus sequence: HGDHVHKGACCACCCGGBGBGDB



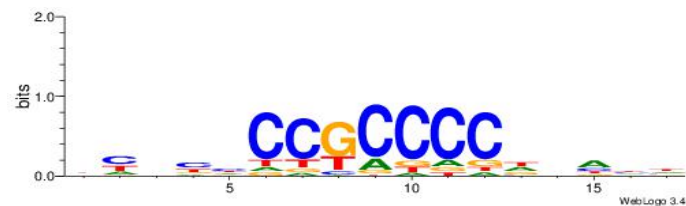
Motif ID: [UP00033](#)  
Motif name: Zfp410\_secondary  
Species: Mus musculus  
Matching format of first motif: Reverse Complement  
Matching format of second motif: Reverse Complement  
Direction: Forward  
Position number: 6  
Number of overlap: 8  
Similarity score: 0.0336185

Alignment:

HHHHDGGGGCGGDBHDV  
-----GGGGMGG-----

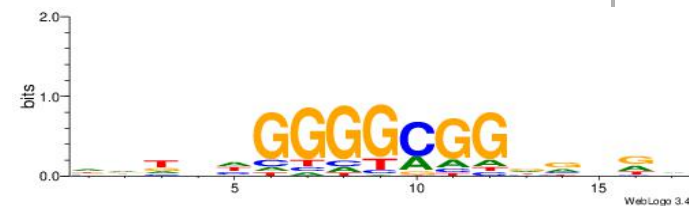
Original motif

Consensus sequence: BHHBHCCGCCCCDHHHH



Reverse complement motif

Consensus sequence: HHHHDGGGGCGGDBHDV



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

Original motif

Consensus sequence: CTGGGA



Reverse complement motif

Consensus sequence: TCCCAG



### Best Matches for Motif ID 8 (Highest to Lowest)

|                                  |                         |
|----------------------------------|-------------------------|
| Motif ID:                        | <a href="#">UP00033</a> |
| Motif name:                      | Zfp410_primary          |
| Species:                         | Mus musculus            |
| Matching format of first motif:  | Original Motif          |
| Matching format of second motif: | Original Motif          |
| Direction:                       | Backward                |
| Position number:                 | 8                       |
| Number of overlap:               | 6                       |
| Similarity score:                | 0                       |

Alignment:

DVDDATGGGATGKMDDV

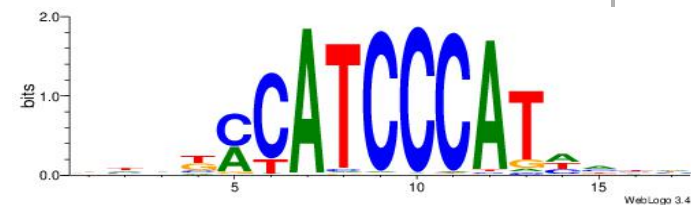
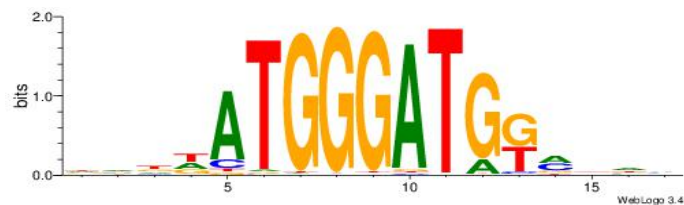
-----CTGGGA-----

Original motif

Consensus sequence: DVDDATGGGATGKMDDV

Reverse complement motif

Consensus sequence: BDDYYCATCCCATDDBD

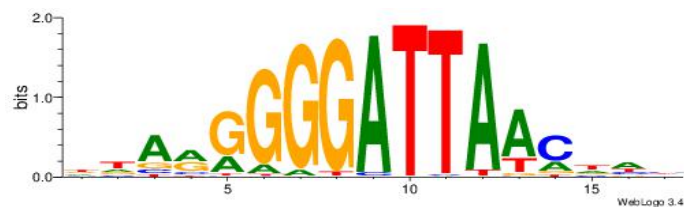


Motif ID: [UP00216](#)  
 Motif name: Obox1  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Forward  
 Position number: 9  
 Number of overlap: 6  
 Similarity score: 0.000600574

Alignment:  
 DHDGTTAATCCCCKTDD  
 -----TCCCAG----

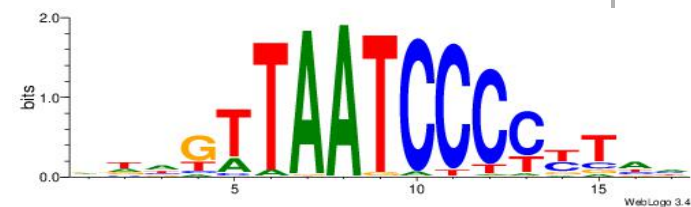
Original motif

Consensus sequence: DDARGGGGATTAACDHH



Reverse complement motif

Consensus sequence: DHDGTTAATCCCCKTDD



Motif ID: [UP00229](#)

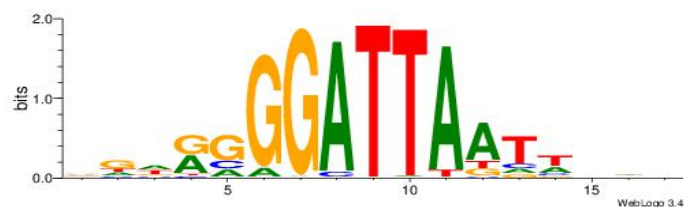
Motif name: Otx1  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Forward  
 Position number: 10  
 Number of overlap: 6  
 Similarity score: 0.0140775

Alignment:

VHHWATTAATCCCMDHH  
 -----TCCCAG--

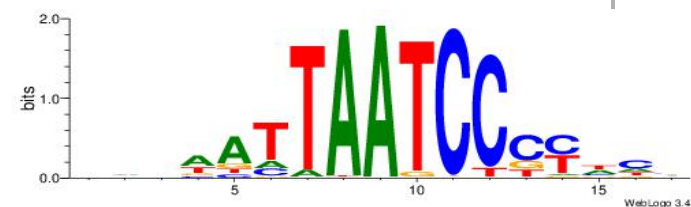
Original motif

Consensus sequence: DDRGGGATTAATWHHB



Reverse complement motif

Consensus sequence: VHHWATTAATCCCMDHH



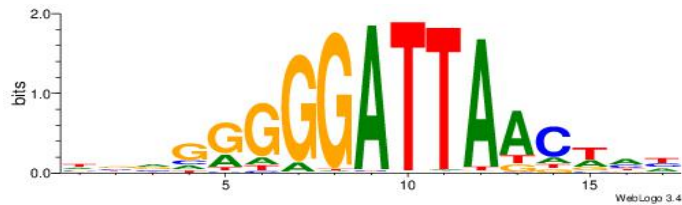

---

Motif ID: [UP00160](#)  
 Motif name: Obox3  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Forward  
 Position number: 9  
 Number of overlap: 6

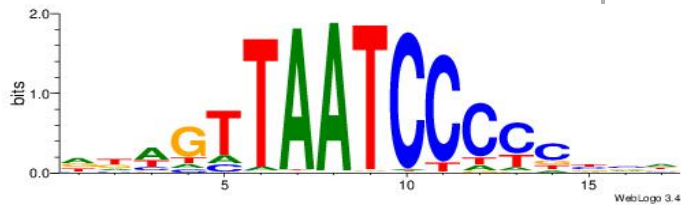
Similarity score: 0.0142192

Alignment:  
HHWGTTAATCCCCBBH  
-----TCCCAG----

Original motif  
Consensus sequence: HBVGGGGGATTAACWHH



Reverse complement motif  
Consensus sequence: HHWGTTAATCCCCBBH

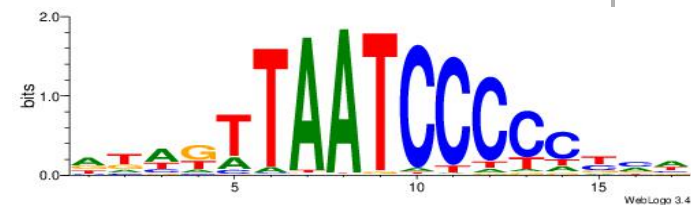
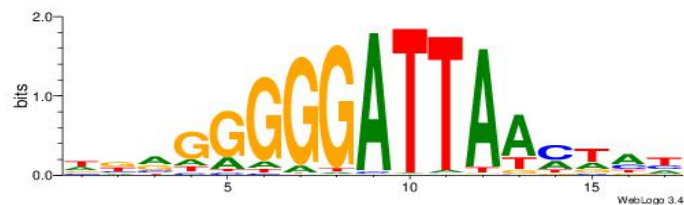


Motif ID: [UP00239](#)  
Motif name: Obox2  
Species: Mus musculus  
Matching format of first motif: Reverse Complement  
Matching format of second motif: Reverse Complement  
Direction: Backward  
Position number: 4  
Number of overlap: 6  
Similarity score: 0.0184594

Alignment:  
HTARTTAATCCCCCKBD  
-----TCCCAG----

Original motif  
Consensus sequence: DBRGGGGGATTAAMTAH

Reverse complement motif  
Consensus sequence: HTARTTAATCCCCCKBD



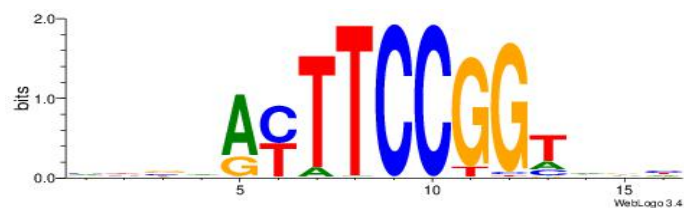
Motif ID: [UP00416](#)  
 Motif name: Fli1  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Reverse Complement  
 Direction: Backward  
 Position number: 7  
 Number of overlap: 6  
 Similarity score: 0.018604

#### Alignment:

DHDACCGGAAKTBBVV  
 ----CTGGGA-----

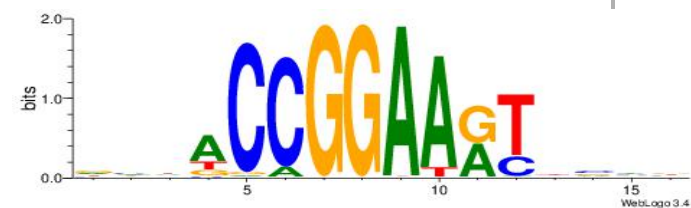
#### Original motif

Consensus sequence: VBBVAYTTCCGGTDDH



#### Reverse complement motif

Consensus sequence: DHDACCGGAAKTBBVV



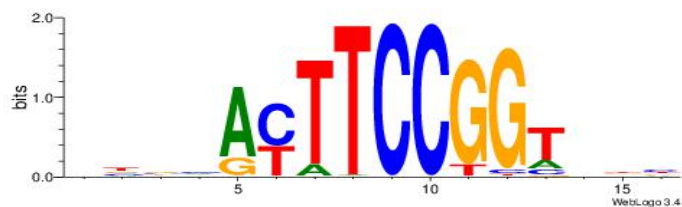
Motif ID: [UP00411](#)  
 Motif name: Erg  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Reverse Complement  
 Direction: Forward  
 Position number: 5  
 Number of overlap: 6  
 Similarity score: 0.0196433

Alignment:

BDDACCGGAAKTVBVB  
 -----CTGGGA-----

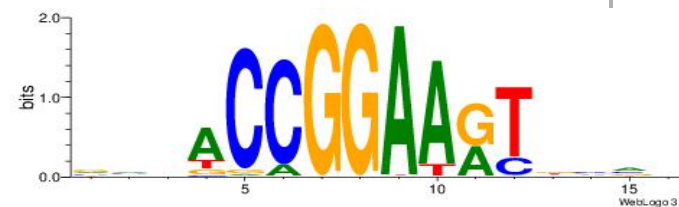
Original motif

Consensus sequence: VBBVAYTTCCGGTDDDB



Reverse complement motif

Consensus sequence: BDDACCGGAAKTVBVB



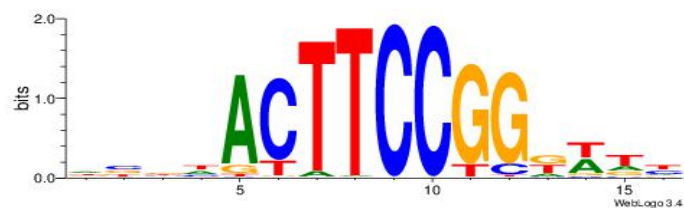
Motif ID: [UP00413](#)  
 Motif name: Elf4  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Reverse Complement  
 Direction: Backward  
 Position number: 7

Number of overlap: 6  
Similarity score: 0.0196806

Alignment:  
HAWYCCGGAAGTHBBD  
-----CTGGGA-----

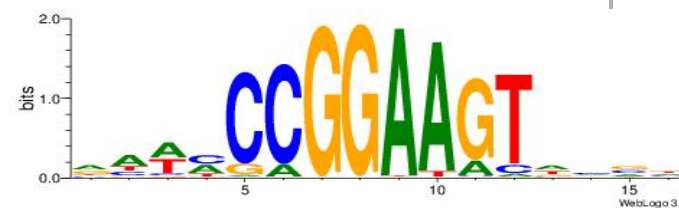
Original motif

Consensus sequence: DBBHACTTCCGGKWITH



Reverse complement motif

Consensus sequence: HAWYCCGGAAGTHBBD



Motif ID: [UP00143](#)  
Motif name: Dobox5  
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: 0.0199632

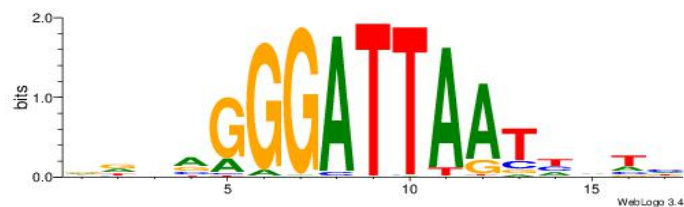
Alignment:  
DDHVGGGATTAATHDTH  
--CTGGGA-----

Original motif

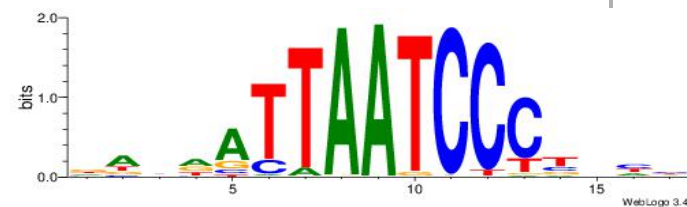
Reverse complement motif



Consensus sequence: DDHVGGGATTAATHDTH



Consensus sequence: DADHATTAATCCCBHHH



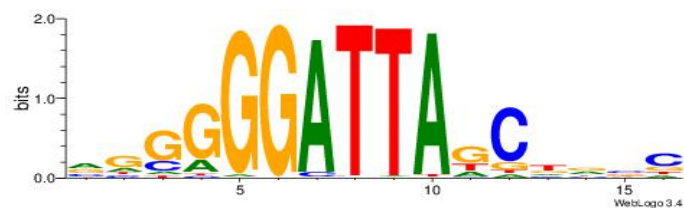
Motif ID: [UP00265](#)  
Motif name: Pitx3  
Species: Mus musculus  
Matching format of first motif: Reverse Complement  
Matching format of second motif: Reverse Complement  
Direction: Forward  
Position number: 10  
Number of overlap: 6  
Similarity score: 0.0210625

Alignment:

GBHDGCTAATCCCCCB  
-----TCCCAG--

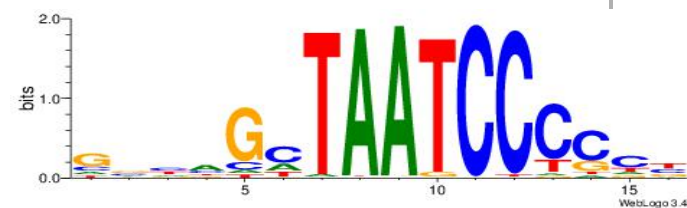
Original motif

Consensus sequence: VGGGGGATTAGCDDBC



Reverse complement motif

Consensus sequence: GBHDGCTAATCCCCCB



**Dataset #: 2**      **Motif ID: 26**      **Motif name: ArntAhr**

Original motif

Consensus sequence: YGCGTG



Reverse complement motif

Consensus sequence: CACGCM



### Best Matches for Motif ID 26 (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: BADHBDHCGCCCMCGCAHHDBBV

Reverse complement motif

Consensus sequence: VVVDHHTGCGYGGGCGDHSVHHTB



|                                  |                    |
|----------------------------------|--------------------|
| 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:

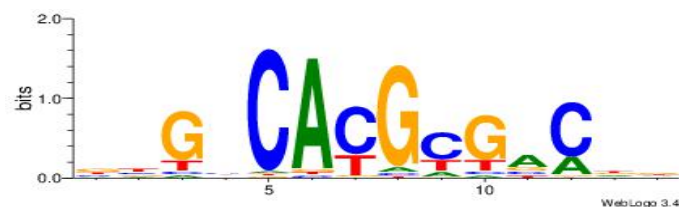
```

HDGTCGCGTGDCVB
----YGCGTG-----

```

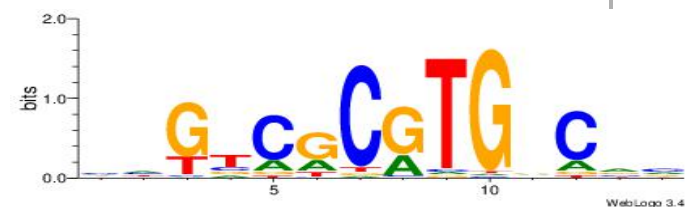
#### Original motif

Consensus sequence: BBGHCACGCGACDD



#### Reverse complement motif

Consensus sequence: HDGTCGCGTGDCVB




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|                                  |                         |
|----------------------------------|-------------------------|
| 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

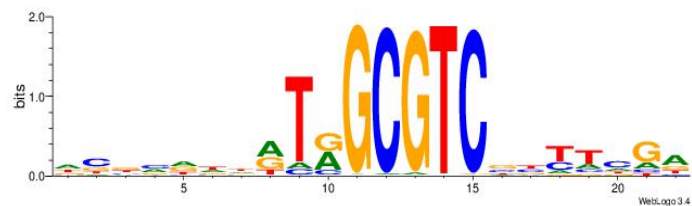
Alignment:

TCDAMVBGACGCMACDDDVBB

-----CACGCM-----

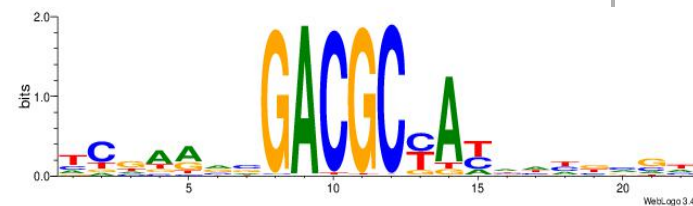
Original motif

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

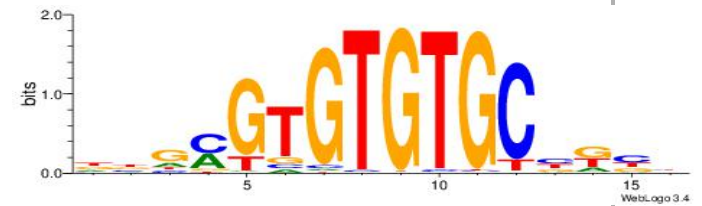
---YGCGTG-----

Original motif

Consensus sequence: DVMVGCACACACKCVH

Reverse complement motif

Consensus sequence: HBGYGTGTGTGCVRVD



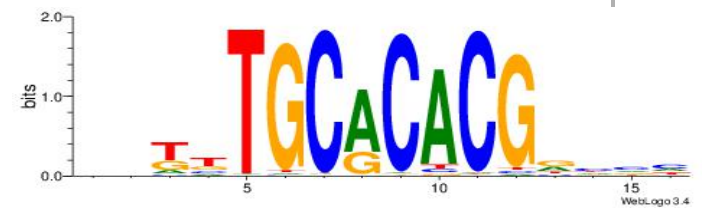
Alignment:

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

Consensus sequence: DBDHCGTGTGCAAMDH



Consensus sequence: HDYTTGCACACGDHBH



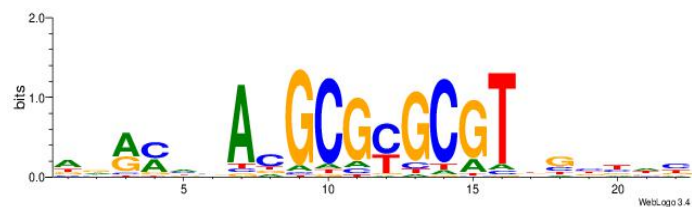
Motif ID: [UP00526](#)  
 Motif name: Foxn1\_secondary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Forward  
 Position number: 8  
 Number of overlap: 6  
 Similarity score: 0.0123233

Alignment:

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

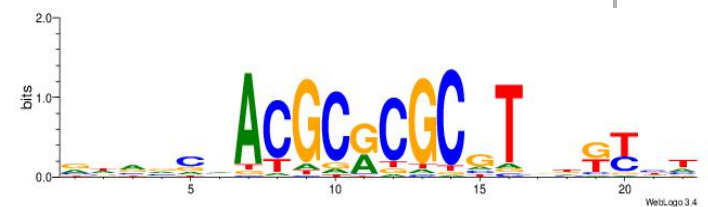
Original motif

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

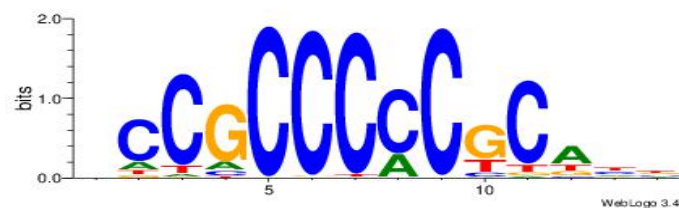
Number of overlap: 6  
Similarity score: 0.0141579

Alignment:

HCCGCCCCCGCAHB  
-----CACGCM--

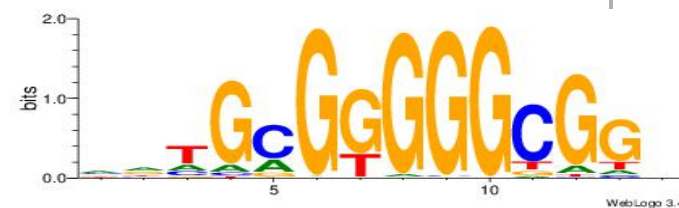
Original motif

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:

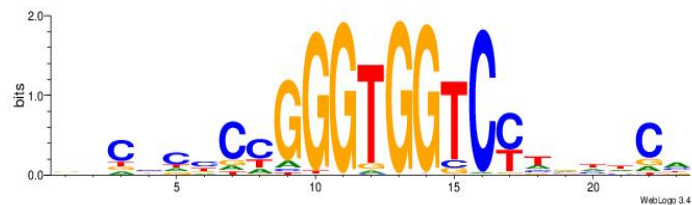
BHCBCBCCGGGTGGTCYHVHDCH  
-----YGCGTG-----

Original motif

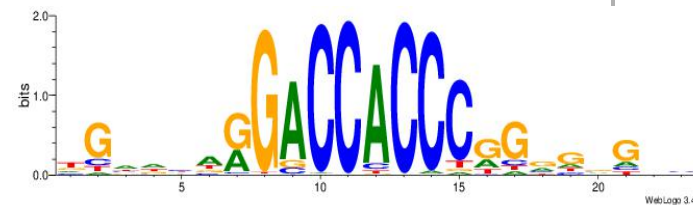
Reverse complement motif



Consensus sequence: BHCBCBCCGGGTGGTCYHVDCH



Consensus sequence: HGDHVHKGACCACCCGGBGBGDB



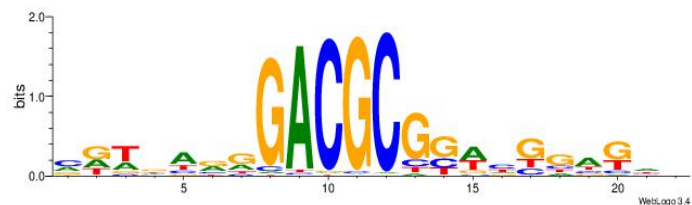
Motif ID: [UP00527](#)  
Motif name: Foxn4\_secondary  
Species: Mus musculus  
Matching format of first motif: Original Motif  
Matching format of second motif: Reverse Complement  
Direction: Forward  
Position number: 10  
Number of overlap: 6  
Similarity score: 0.0172109

Alignment:

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

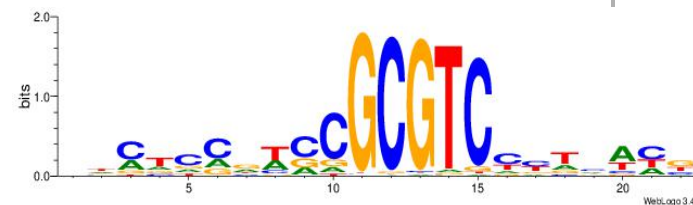
Original motif

Consensus sequence: VDWDARRGACGCGGWHGGAHV



Reverse complement motif

Consensus sequence: VHYTCCDWCCGCGTCMMTHWHV



**Dataset #: 2**      **Motif ID: 33**      **Motif name: HIF1AARNT**

Original motif

Consensus sequence: VBACGTGV



Reverse complement motif

Consensus sequence: VCACGTBV



### Best Matches for Motif ID 33 (Highest to Lowest)

|                                  |                         |
|----------------------------------|-------------------------|
| Motif ID:                        | <a href="#">UP00097</a> |
| 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:

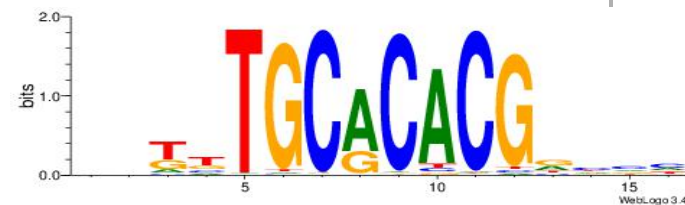
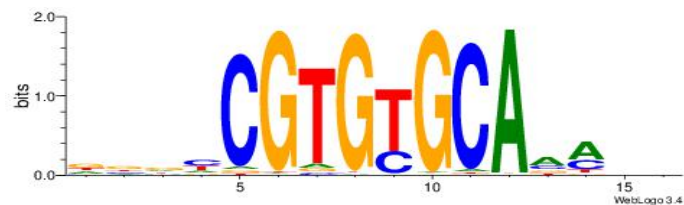
```
HDYTTGCACACGDHBH
-----VCACGTBV--
```

Original motif

Consensus sequence: DBDHC GTGTGCAAMDH

Reverse complement motif

Consensus sequence: HDYTTGCACACGDHBH

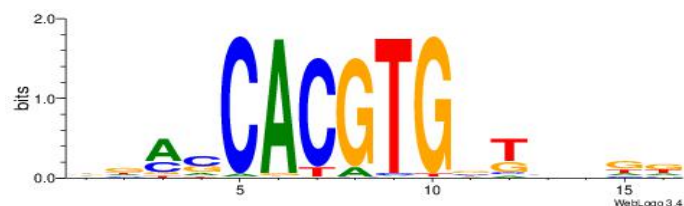


Motif ID: [UP00060](#)  
 Motif name: Max\_primary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Backward  
 Position number: 4  
 Number of overlap: 8  
 Similarity score: 0.000574345

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

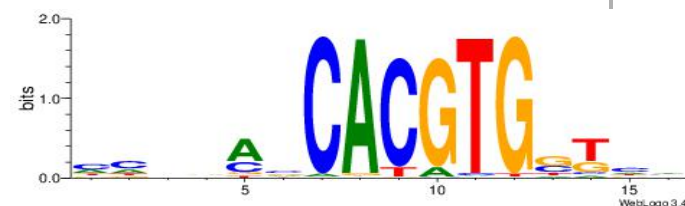
Original motif

Consensus sequence: DDASCACGTGBTBVDD



Reverse complement motif

Consensus sequence: HHVBABCACGTGSTHD



Motif ID: [UP00050](#)

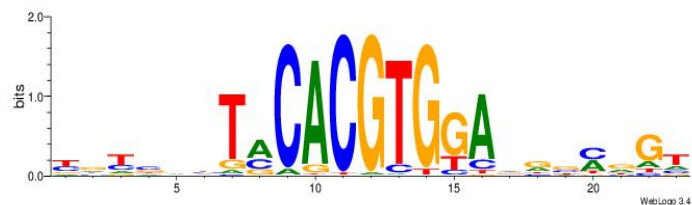
Motif name: Bhlhb2\_secondary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Backward  
 Position number: 9  
 Number of overlap: 8  
 Similarity score: 0.00642455

Alignment:

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

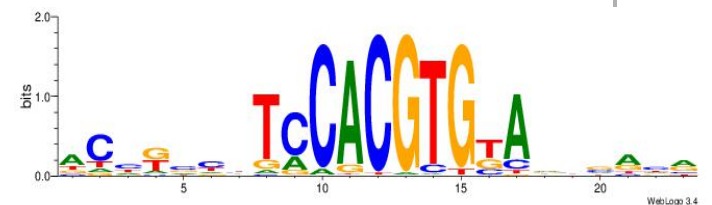
Original motif

Consensus sequence: YDYBDHTMCACGTGGADDBMDGT



Reverse complement motif

Consensus sequence: ACHRBHDTCCACGTGYAHHBMHM




---

Motif ID: [UP00084](#)  
 Motif name: Gmeb1\_primary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Reverse Complement  
 Direction: Backward  
 Position number: 5  
 Number of overlap: 8

Similarity score: 0.0131171

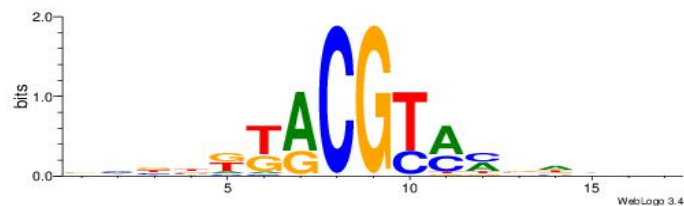
Alignment:

BVVDVRYACGTRYVBHB

-----VBACGTGV-----

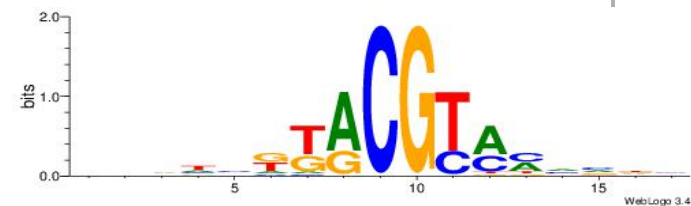
Original motif

Consensus sequence: BHBBKKACGTMMVDBVB



Reverse complement motif

Consensus sequence: BVVDVRYACGTRYVBHB



Motif ID: [UP00050](#)  
Motif name: Bhlhb2\_primary  
Species: Mus musculus  
Matching format of first motif: Reverse Complement  
Matching format of second motif: Original Motif  
Direction: Backward  
Position number: 8  
Number of overlap: 8  
Similarity score: 0.014006

Alignment:

RDHDBVDTACGTGASBHVHDH

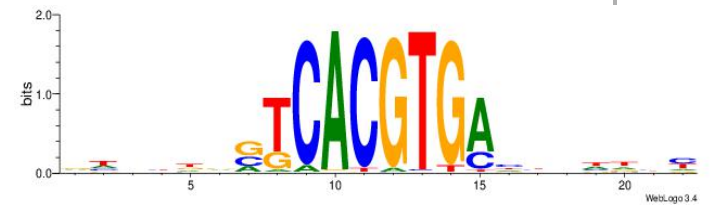
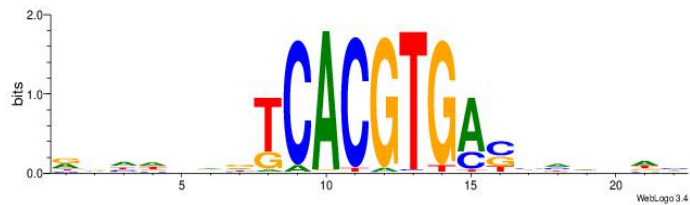
-----VCACGTBV-----

Original motif

Consensus sequence: RDHDBVDTACGTGASBHVHDH

Reverse complement motif

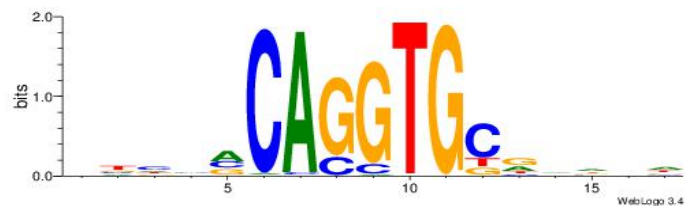
Consensus sequence: DDHBHBSTACGTGAHBBDHMH



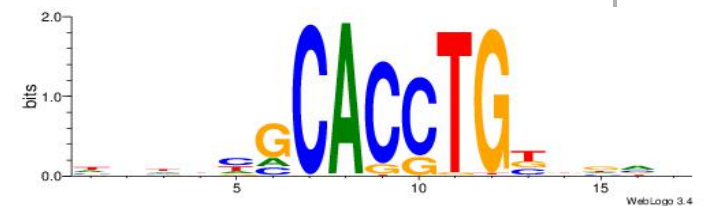
Motif ID: [UP00046](#)  
 Motif name: Tcfe2a\_primary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Forward  
 Position number: 5  
 Number of overlap: 8  
 Similarity score: 0.0184296

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

Original motif  
 Consensus sequence: VBHHVCAGGTGCDVDHD



Reverse complement motif  
 Consensus sequence: DHDBHGCACCTGBDDVB



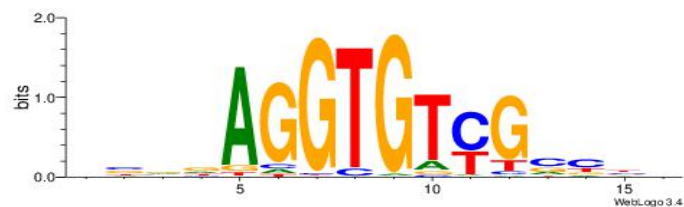
Motif ID: [UP00068](#)  
 Motif name: Eomes\_secondary  
 Species: Mus musculus  
 Matching format of first motif: Reverse Complement  
 Matching format of second motif: Reverse Complement  
 Direction: Backward  
 Position number: 3  
 Number of overlap: 8  
 Similarity score: 0.0188154

Alignment:

VVBVCKACACCTHVBV  
 -----VCACGTBV--

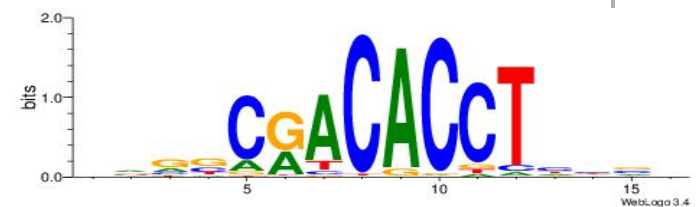
Original motif

Consensus sequence: VBVDAGGTGTGVBVV



Reverse complement motif

Consensus sequence: VVBVCKACACCTHVBV



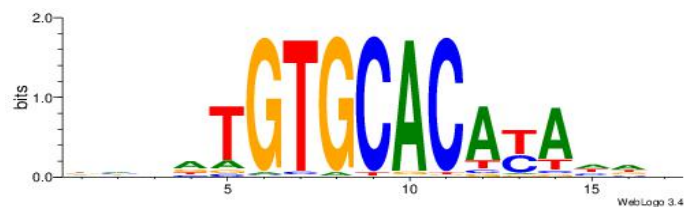
Motif ID: [UP00026](#)  
 Motif name: Zscan4\_primary  
 Species: Mus musculus  
 Matching format of first motif: Original Motif  
 Matching format of second motif: Original Motif  
 Direction: Backward  
 Position number: 9

Number of overlap: 8  
Similarity score: 0.0189568

Alignment:  
DHVDTGTGCACAYAHDH  
-VBACGTGV-----

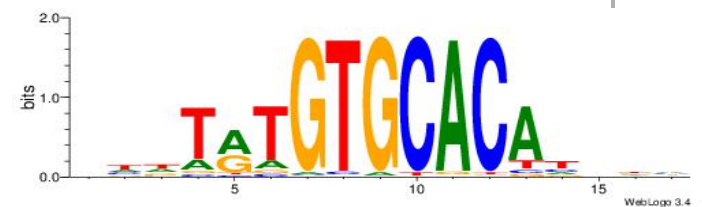
Original motif

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

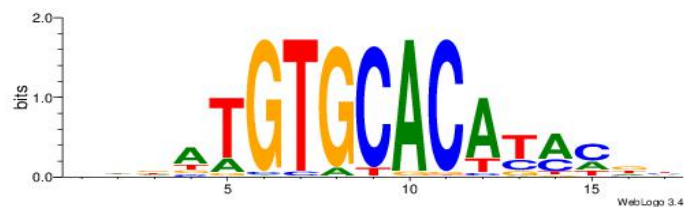
Alignment:  
HHRTATGTGCACATHHD  
--VBACGTGV-----

Original motif

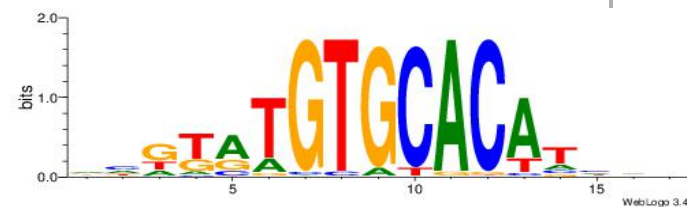
Reverse complement motif



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

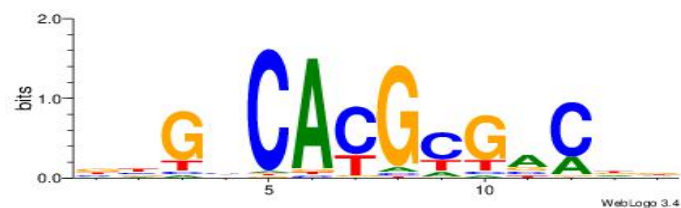
Alignment:

BBGHCACGCGACDD

---VCACGTBV---

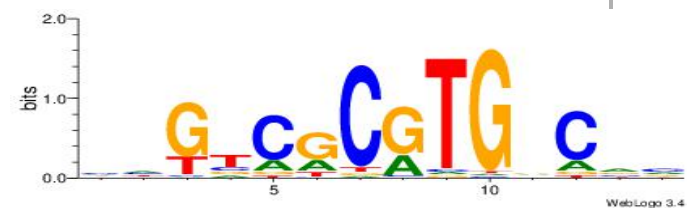
Original motif

Consensus sequence: BBGHCACGCGACDD



Reverse complement motif

Consensus sequence: HDGTCGCGTGDCVB



Results created by MOTIFSIM on 11-20-2016 13:44:02  
Runtime: 673.485 seconds

MOTIFSIM is written by Ngoc Tam L. Tran  
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