MOTIFSIM - MOTIF SIMilarity Detection Tool

Version 2.2

INPUT

Input Parameters

Number of files:	4
Number of top significant motifs:	10
Number of best matches:	5
Similarity cutoff >=	0.75
Matching motif database:	UniProbe Mus Musculus
Motif tree:	Yes
Combined similar motifs:	Yes
Output file type:	All
Output file format:	All

Input files and motif counts

File name	Count of motifs	Dataset number
DREME_DM254.txt	45	1
MEME-CHIP_DM254.txt	24	2
PScanChIP_DM254.txt	63	3
RSAT_peak-motifs_DM254.txt	39	4

RESULTS

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

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

Original motif
Consensus sequence: AGRKGGCR

Reverse complement motif
Consensus sequence: KGCCYKCT

Best Matches for Motif ID 1 (Highest to Lowest)

Motif ID:	UP00002
Motif name:	Sp4_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	6
Number of overlap:	8
Similarity score:	0

Alignment:

```
BVVHAGGGGGCGRDHHB
----AGRKGGCR-----
```

Original motif

Consensus sequence: BDHHMCGCCCCCTHVBB

Reverse complement motif

Consensus sequence: BVVHAGGGGGCGRDHHB

Motif ID:	UP00079
Motif name:	Esrra_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:	0.0152094

Alignment:

```
VKBBAGGGGTCAHDBBH
----AGRKGGCR-----
```

Original motif

Consensus sequence: VKBBAGGGGTCAHDBBH

Reverse complement motif

Consensus sequence: DBBHHTGACCCCTBBYV

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:	3
Number of overlap:	8
Similarity score:	0.0160089

Alignment:

```
VHTGCGGGGGCGGH
----AGRKGGCR--
```

Original motif

Consensus sequence: HCCGCCCCCGCAHB

Reverse complement motif

Consensus sequence: VHTGCGGGGGCGGH

Motif ID:	UP00010
Motif name:	Tcfap2b_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:	8
Similarity score:	0.0244919

Alignment:

```
HTGCCMTVKGGCMD
-KGCCYKCT-----
```

Original motif

Consensus sequence: DYGCCYBARGGCAH

Reverse complement motif

Consensus sequence: HTGCCMTVKGGCMD

Motif ID:	UP00070
Motif name:	Gcm1_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	8
Similarity score:	0.0267457

Alignment:

```
DDBVHATAGGGGRBRMB
-------AGRKGGCR--
```

Original motif

Consensus sequence: DDBVHATAGGGGRBRMB

Reverse complement motif

Consensus sequence: BYMBKCCCCTATDVBHD

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

Original motif

Consensus sequence: AAAAHAAA

Reverse complement motif

Consensus sequence: TTTDTTTT

Best Matches for Motif ID 2 (Highest to Lowest)

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:	Backward
Position number:	4
Number of overlap:	8
Similarity score:	0

Alignment:
DWAATRTAAACAAWVVB
------AAAAHAAA---

Original motif
Consensus sequence: DWAATRTAAACAAWVVB

Reverse complement motif
Consensus sequence: VVVWTTGTTTAMATTWD

Motif ID:	UP00062
Motif name:	Sox4_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:	8
Similarity score:	0.000495784

Alignment:
HBDDDAACAAAGRVBHH
---AAAAHAAA------

Original motif
Consensus sequence: HBDDDAACAAAGRVBHH

Reverse complement motif
Consensus sequence: HHBBMCTTTGTTHDDBH

Motif ID:	UP00030
Motif name:	Sox11_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:	0.000916442

Alignment:

```
HBDDRAACAAAGRABHH
---AAAAHAAA------
```

Original motif

Consensus sequence: HBDDRAACAAAGRABHH

Reverse complement motif

Consensus sequence: HHBTMCTTTGTTMDDVH

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:	Backward
Position number:	4
Number of overlap:	8
Similarity score:	0.00246818

Alignment:

```
HDHADGTAAACAAAVVH
------AAAAHAAA---
```

Original motif

Consensus sequence: HDHADGTAAACAAAVVH

Reverse complement motif

Consensus sequence: DVVTTTGTTTACDTHDH

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:	Forward
Position number:	7
Number of overlap:	8

Similarity score: 0.00320862

Alignment:

```
DDAATGTAAACAAAVVB
------AAAAHAAA---
```

Original motif

Consensus sequence: DDAATGTAAACAAAVVB

Reverse complement motif

Consensus sequence: BBVTTTGTTTACATTDD

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

Original motif

Consensus sequence: CACACACA

Reverse complement motif

Consensus sequence: TGTGTGTG

Best Matches for Motif ID 3 (Highest to Lowest)

Motif ID:	UP00042
Motif name:	Gm397_second
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:

```
HBGYGTGTGTGCVRVD
---TGTGTGTG-----
```

Original motif

Consensus sequence: DVMVGCACACACKCVH

Reverse complement motif

Consensus sequence: HBGYGTGTGTGCVRVD

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:	Backward
Position number:	4
Number of overlap:	8
Similarity score:	0.0271943

Alignment:

BHHHTTGTGTGCKHVD
-----TGTGTGTG---

Original motif

Consensus sequence: HVHRGCACACAAHHHV

Reverse complement motif

Consensus sequence: BHHHTTGTGTGCKHVD

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:	Forward
Position number:	9
Number of overlap:	8
Similarity score:	0.0336839

Alignment:
DHVDTGTGCACAYAHDH
--------CACACACA-

Original motif

Consensus sequence: DHVDTGTGCACAYAHDH

Reverse complement motif

Consensus sequence: HDHTMTGTGCACADVHD

Motif ID:	UP00000
Motif name:	Smad3_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:	0.0355485

Alignment:

```
HVHBVTGTCTGGDDHDD
---TGTGTGTG------
```

Original motif

Consensus sequence: HDHDDCCAGACABBHVH

Reverse complement motif

Consensus sequence: HVHBVTGTCTGGDDHDD

Motif ID:	UP00540

Motif name:	Gli3_v015681_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	12
Number of overlap:	8
Similarity score:	0.0404116

Alignment:

```
ABBBBVVRGACCACCCACRDBBM
-----------CACACACA----
```

Original motif

Consensus sequence: ABBBBVVRGACCACCCACRDBBM

Reverse complement motif

Consensus sequence: YBVDMGTGGGTGGTCKVVBVBBT

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

Original motif

Consensus sequence: TTTWWAW

Reverse complement motif

Consensus sequence: WTWWAAA

Best Matches for Motif ID 4 (Highest to Lowest)

Motif ID:	UP00207
Motif name:	Hoxb9
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:	7
Similarity score:	0

Alignment:

```
HDHHTTTTATRGCKMV
---TTTWWAW------
```

Original motif

Consensus sequence: VRRGCMATAAAAHHHD

Reverse complement motif

Consensus sequence: HDHHTTTTATRGCKMV

Motif ID:	UP00061
Motif name:	Foxl1_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	8
Number of overlap:	7
Similarity score:	0.000691918

Alignment:

```
VVVWTTGTTTAMATTWD
-------TTTWWAW---
```

Original motif

Consensus sequence: DWAATRTAAACAAWVVB

Reverse complement motif

Consensus sequence: VVVWTTGTTTAMATTWD

Motif ID:	UP00134
Motif name:	Hoxb13
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: 0.00184871

Alignment:
VDHWTTTTATTGGDKB
---TTTWWAW------

Original motif
Consensus sequence: VRHCCAATAAAAWHHV

Reverse complement motif
Consensus sequence: VDHWTTTTATTGGDKB

Motif ID: UP00213
Motif name: Hoxa9
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: 0.00275206

Alignment:
WDTAWTTTWATGKCCGD
----TTTWWAW------

Original motif

Reverse complement motif

Consensus sequence: DCGGYCATWAAAWTADW

Consensus sequence: WDTAWTTTWATGKCCGD

Motif ID:	UP00114
Motif name:	Homez
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	7
Similarity score:	0.00499979

Alignment:

```
AHWWMATCGTTTTBADD
---------TTTWWAW-
```

Original motif

Consensus sequence: AHWWMATCGTTTTBADD

Reverse complement motif

Consensus sequence: HDTVAAAACGATRWWHT

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

Original motif

Consensus sequence: CCCCDCCC

Reverse complement motif

Consensus sequence: GGGDGGGG

Best Matches for Motif ID 5 (Highest to Lowest)

Motif ID:	UP00093
Motif name:	Klf7_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	5
Number of overlap:	8
Similarity score:	0

Alignment:

```
HBDRCCMCGCCCHHHD
----CCCCDCCC----
```

Original motif

Consensus sequence: HBDRCCMCGCCCHHHD

Reverse complement motif

Consensus sequence: DHHDGGGCGRGGKHBH

Motif ID:	UP00021
Motif name:	Zfp281_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	8
Similarity score:	0.0165797

Alignment:

```
GKRGGGGGGGGGGBD
-----GGGDGGGG--
```

Original motif

Consensus sequence: DBCCCCCCCCCCMYC

Reverse complement motif

Consensus sequence: GKRGGGGGGGGGGBD

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:	6
Number of overlap:	8
Similarity score:	0.026633

Alignment:

```
BHHDYGGGGGGGGBVD
-----GGGDGGGG---
```

Original motif

Consensus sequence: HVBCCCCCCCCMHHHB

Reverse complement motif

Consensus sequence: BHHDYGGGGGGGGBVD

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:	8
Number of overlap:	8

Similarity score: 0.0273225

Alignment:
MHHHWHYTMCCHCCCACVAABVH
-------CCCCDCCC--------

Original motif
Consensus sequence: MHHHWHYTMCCHCCCACVAABVH

Reverse complement motif
Consensus sequence: DVVTTVGTGGGHGGYAMHWHHHY

Motif ID: UP00007
Motif name: Egr1_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: 8
Similarity score: 0.0364166

Alignment:
VHTGCGGGGGCGGH
-----GGGDGGGG-

Original motif
Consensus sequence: HCCGCCCCCGCAHB

Reverse complement motif
Consensus sequence: VHTGCGGGGGCGGH

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

Original motif

Consensus sequence: CTGGRRA

Reverse complement motif

Consensus sequence: TMMCCAG

Best Matches for Motif ID 6 (Highest to Lowest)

Motif ID:	UP00000
Motif name:	Smad3_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:	7
Similarity score:	0.00121838

Alignment:

HVHBVTGTCTGGDDHDD
--------CTGGRRA--

Original motif

Consensus sequence: HDHDDCCAGACABBHVH

Reverse complement motif

Consensus sequence: HVHBVTGTCTGGDDHDD

Motif ID:	UP00231
Motif name:	Nkx2-2
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:	7
Similarity score:	0.00386806

Alignment:

HDVRCCACTTGARADBD
-------CTGGRRA---

Original motif

Consensus sequence: HDVRCCACTTGARADBD

Reverse complement motif

Consensus sequence: DVDTKTCAAGTGGKBDH

Motif ID:	UP00046
Motif name:	Tcfe2a_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:	7
Similarity score:	0.00420562

Alignment:

```
VBHHVCAGGTGCDVDHD
-TMMCCAG---------
```

Original motif

Consensus sequence: VBHHVCAGGTGCDVDHD

Reverse complement motif

Consensus sequence: DHDBHGCACCTGBDDVB

Motif ID:	UP00161

Motif name:	Hmbox1
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:	0.00428647

Alignment:

```
BDDBTTAACTAGWDKHV
-----TMMCCAG-----
```

Original motif

Consensus sequence: VHRDWCTAGTTAABDDB

Reverse complement motif

Consensus sequence: BDDBTTAACTAGWDKHV

Motif ID:	UP00098
Motif name:	Rfx3_secondary
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:	7

Similarity score: 0.010788

Alignment:
BDBBVBVGTAWCCAAGVBHBAGB
--------TMMCCAG--------

Original motif
Consensus sequence: VCTBHBVCTTGGWTACVVVVVDB

Reverse complement motif
Consensus sequence: BDBBVBVGTAWCCAAGVBHBAGB

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

Original motif
Consensus sequence: AGRAAA

Reverse complement motif
Consensus sequence: TTTMCT

Best Matches for Motif ID 7 (Highest to Lowest)

Motif ID:	UP00073
Motif name:	Foxa2_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:

```
BDVTTTKTTTACWTWHH
-------TTTMCT----
```

Original motif

Consensus sequence: HHWAWGTAAAYAAAVDB

Reverse complement motif

Consensus sequence: BDVTTTKTTTACWTWHH

Motif ID:	UP00039
Motif name:	Foxj3_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	8
Number of overlap:	6
Similarity score:	0.0125029

Alignment:

DVVTTTGTTTACDTHDH
-------TTTMCT----

Original motif

Consensus sequence: HDHADGTAAACAAAVVH

Reverse complement motif

Consensus sequence: DVVTTTGTTTACDTHDH

Motif ID:	UP00090
Motif name:	Elf3_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:	6
Similarity score:	0.0161149

Alignment:

DAHMMGGAARTDA
----AGRAAA---

Original motif

Consensus sequence: DAHMMGGAARTDA

Reverse complement motif

Consensus sequence: TDAMTTCCYYDTD

Motif ID:	UP00025
Motif name:	Foxk1_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:	0.0165207

Alignment:

```
BBVTTTGTTTACATTDD
-------TTTMCT----
```

Original motif

Consensus sequence: DDAATGTAAACAAAVVB

Reverse complement motif

Consensus sequence: BBVTTTGTTTACATTDD

Motif ID:	UP00180

Motif name:	Hoxd13
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:	6
Similarity score:	0.0170044

Alignment:

```
HDHYYAATAAAAHHHH
------AGRAAA----
```

Original motif

Consensus sequence: HDHYYAATAAAAHHHH

Reverse complement motif

Consensus sequence: HDHHTTTTATTKKHDD

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

Original motif

Consensus sequence: AAATAH

Reverse complement motif

Consensus sequence: DTATTT

Best Matches for Motif ID 8 (Highest to Lowest)

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:	5
Number of overlap:	6
Similarity score:	0

Alignment:

```
HHWAWGTAAAYAAAVDB
-------AAATAH----
```

Original motif

Consensus sequence: HHWAWGTAAAYAAAVDB

Reverse complement motif

Consensus sequence: BDVTTTKTTTACWTWHH

Motif ID:	UP00166
Motif name:	Barhl1
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:	6
Similarity score:	0.00310877

Alignment:

```
DDVKTAATTGGTTDTH
---DTATTT-------
```

Original motif

Consensus sequence: HAHAACCAATTARBDH

Reverse complement motif

Consensus sequence: DDVKTAATTGGTTDTH

Motif ID:	UP00242
Motif name:	Hoxc8
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: 0.00420475

Alignment:
BHDDDGTAATTAHHDT
-------AAATAH---

Original motif
Consensus sequence: BHDDDGTAATTAHHDT

Reverse complement motif
Consensus sequence: AHDHTAATTACHHHHV

Motif ID: UP00179
Motif name: Pou2f3
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: 6
Similarity score: 0.00508605

Alignment:
BHDTATGCAAATBHDV
--------AAATAH--

Original motif

Reverse complement motif

Consensus sequence: BHDTATGCAAATBHDV

Consensus sequence: BHHVATTTGCATAHHV

Motif ID:	UP00202
Motif name:	Dlx1
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:	6
Similarity score:	0.00517242

Alignment:

```
BHGVRDTAATTADY
-----DTATTT---
```

Original motif

Consensus sequence: BHGVRDTAATTADY

Reverse complement motif

Consensus sequence: MDTAATTAHMBCHB

Dataset #: 1 **Motif ID: 9** **Motif name: Motif 9**

Original motif

Consensus sequence: GGTGGCWS

Reverse complement motif

Consensus sequence: SWGCCACC

Best Matches for Motif ID 9 (Highest to Lowest)

Motif ID:	UP00538
Motif name:	Gli1_v016060_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	11
Number of overlap:	8
Similarity score:	0

Alignment:

```
HVBDAGCGBGGGTGGCRDBDDDB
----------GGTGGCWS-----
```

Original motif

Consensus sequence: HVBDAGCGBGGGTGGCRDBDDDB

Reverse complement motif

Consensus sequence: BDDHVDKGCCACCCVCGCTDBVH

Motif ID:	UP00539
Motif name:	Gli2_v015681_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:	0.0128982

Alignment:

```
HTBVVVDGGACCACCCRGRDBG
-------SWGCCACC-------
```

Original motif

Consensus sequence: HTBVVVDGGACCACCCRGRDBG

Reverse complement motif

Consensus sequence: CBDMCMGGGTGGTCCHVBVBAH

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:	10
Number of overlap:	8
Similarity score:	0.0130995

Alignment:

```
HGDHVHKGACCACCCGGBGBGDB
------SWGCCACC---------
```

Original motif

Consensus sequence: BHCBCBCCGGGTGGTCYHVHDCH

Reverse complement motif

Consensus sequence: HGDHVHKGACCACCCGGBGBGDB

Motif ID:	UP00035
Motif name:	Hic1_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:	8

Similarity score: 0.0142671

Alignment:
DBBATGCCAACCHVHH
---SWGCCACC-----

Original motif
Consensus sequence: DBBATGCCAACCHVHH

Reverse complement motif
Consensus sequence: DDBHGGTTGGCATVBD

Motif ID: UP00540
Motif name: Gli3_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: 0.0142765

Alignment:
HDGHHBHRGACCACCCGSVDVG
-------SWGCCACC-------

Original motif
Consensus sequence: HDGHHBHRGACCACCCGSVDVG

Reverse complement motif
Consensus sequence: CVHBSCGGGTGGTCMHVHHCDH

Dataset #: 1 **Motif ID: 10** **Motif name: Motif 10**

Original motif

Consensus sequence: CTGGCCTC

Reverse complement motif

Consensus sequence: GAGGCCAG

Best Matches for Motif ID 10 (Highest to Lowest)

Motif ID:	UP00527
Motif name:	Foxn4_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	8
Number of overlap:	8
Similarity score:	0

Alignment:

TCDAMVBGACGCMAKDDDVBBD
-------GAGGCCAG-------

Original motif

Consensus sequence: DBBVDDDRTRGCGTCBBYTHGA

Reverse complement motif

Consensus sequence: TCDAMVBGACGCMAKDDDVBBD

Motif ID:	UP00079
Motif name:	Esrra_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	6
Number of overlap:	8
Similarity score:	0.000107403

Alignment:
DBBHHTGACCCCTBBYV
----CTGGCCTC-----

Original motif

Consensus sequence: VKBBAGGGGTCAHDBBH

Reverse complement motif

Consensus sequence: DBBHHTGACCCCTBBYV

Motif ID:	UP00020
Motif name:	Atf1_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:	0.00300031

Alignment:

```
DMDMTGACGTCAKHBD
---CTGGCCTC-----
```

Original motif

Consensus sequence: DBDRTGACGTCAYHRD

Reverse complement motif

Consensus sequence: DMDMTGACGTCAKHBD

Motif ID:	UP00053

Motif name:	Rxra_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:	8
Similarity score:	0.00367302

Alignment:

```
DBHBDTGACCCCDHVHB
----CTGGCCTC-----
```

Original motif

Consensus sequence: DBHBDTGACCCCDHVHB

Reverse complement motif

Consensus sequence: VHBHDGGGGTCAHBHBD

Motif ID:	UP00079
Motif name:	Esrra_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:	8

Similarity score: 0.00526703

Alignment:
HHBVHTGACCTTGVDHD
----CTGGCCTC-----

Original motif
Consensus sequence: DHDBCAAGGTCAHVBDH

Reverse complement motif
Consensus sequence: HHBVHTGACCTTGVDHD

Dataset #: 1 Motif ID: 11 Motif name: Motif 11

Original motif
Consensus sequence: CTBCCTCY

Reverse complement motif
Consensus sequence: MGAGGBAG

Best Matches for Motif ID 11 (Highest to Lowest)

Motif ID:	UP00085
Motif name:	Sfpi1_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

Alignment:

```
HDACTTCCBCWTDV
---CTBCCTCY---
```

Original motif

Consensus sequence: BDAWGVGGAAGTDH

Reverse complement motif

Consensus sequence: HDACTTCCBCWTDV

Motif ID:	UP00409
Motif name:	Elf5
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:	0.000275689

Alignment:

BWAHSMGGAAGTWD
---MGAGGBAG---

Original motif
Consensus sequence: BWAHSMGGAAGTWD

Reverse complement motif
Consensus sequence: DWACTTCCRSDTWV

Motif ID:	UP00419
Motif name:	Spic
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:	0.000518708

Alignment:
DWACTTCCRCTTTB
---CTBCCTCY---

Original motif
Consensus sequence: VAAAGMGGAAGTWD

Reverse complement motif
Consensus sequence: DWACTTCCRCTTTB

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:	Backward
Position number:	6
Number of overlap:	8
Similarity score:	0.00485464

Alignment:

```
BVVHAGGGGGCGRDHHB
----MGAGGBAG-----
```

Original motif

Consensus sequence: BDHHMCGCCCCCTHVBB

Reverse complement motif

Consensus sequence: BVVHAGGGGGCGRDHHB

Motif ID:	UP00093

Motif name:	Klf7_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:	0.00614662

Alignment:

```
DHHDGGGCGRGGKHBH
-------MGAGGBAG-
```

Original motif

Consensus sequence: HBDRCCMCGCCCHHHD

Reverse complement motif

Consensus sequence: DHHDGGGCGRGGKHBH

Dataset #: 1 Motif ID: 12 Motif name: Motif 12

Original motif

Consensus sequence: GATGGCTC

Reverse complement motif

Consensus sequence: GAGCCATC

Best Matches for Motif ID 12 (Highest to Lowest)

Motif ID:	UP00046
Motif name:	Tcfe2a_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:	8
Similarity score:	0

Alignment:

```
HVDDVCAGATGKYHBBV
-------GATGGCTC--
```

Original motif

Consensus sequence: HVDDVCAGATGKYHBBV

Reverse complement motif

Consensus sequence: VBBDMYCATCTGVHHBH

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:	Backward
Position number:	2
Number of overlap:	8
Similarity score:	0.00155237

Alignment:

```
DVDDATGGGATGKMDDV
--------GATGGCTC-
```

Original motif

Consensus sequence: DVDDATGGGATGKMDDV

Reverse complement motif

Consensus sequence: BDDYYCATCCCATDDBD

Motif ID:	UP00528
Motif name:	Foxm1_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: 8
Similarity score: 0.00582365

Alignment:
VHVRCAYGATGCATCDTVVADTH
-------GAGCCATC--------

Original motif
Consensus sequence: HADTBVADGATGCATCMTGMVHB

Reverse complement motif
Consensus sequence: VHVRCAYGATGCATCDTVVADTH

Motif ID: UP00103
Motif name: Jundm2_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: 8
Similarity score: 0.00695523

Alignment:
HDDKTGASTCAKHRDB
-----GAGCCATC---

Original motif

Reverse complement motif

Consensus sequence: VDKDRTGASTCAYHDH

Consensus sequence: HDDKTGASTCAKHRDB

Motif ID:	UP00035
Motif name:	Hic1_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:	8
Similarity score:	0.00724333

Alignment:

```
DBBATGCCAACCHVHH
---GAGCCATC-----
```

Original motif

Consensus sequence: DBBATGCCAACCHVHH

Reverse complement motif

Consensus sequence: DDBHGGTTGGCATVBD

Dataset #: 1 **Motif ID: 13** **Motif name: Motif 13**

Original motif

Consensus sequence: CAGYDCC

Reverse complement motif

Consensus sequence: GGDKCTG

Best Matches for Motif ID 13 (Highest to Lowest)

Motif ID:	UP00205
Motif name:	Pknox2
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:	0.0202873

Alignment:

```
VHATTGACAGSKSVTH
-------CAGYDCC--
```

Original motif

Consensus sequence: HAVSRSCTGTCAATHB

Reverse complement motif

Consensus sequence: VHATTGACAGSKSVTH

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:	0.022836

Alignment:

```
DABWWTGACAGCTVVBD
--------CAGYDCC--
```

Original motif

Consensus sequence: DABWWTGACAGCTVVBD

Reverse complement motif

Consensus sequence: DBVVAGCTGTCAWWVTH

Motif ID:	UP00258

Motif name:	Tgif2
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:	0.0283472

Alignment:

```
VBWTTGACAGCTVBTT
-------CAGYDCC--
```

Original motif

Consensus sequence: AABBAGCTGTCAAWVV

Reverse complement motif

Consensus sequence: VBWTTGACAGCTVBTT

Motif ID:	UP00203
Motif name:	Pknox1
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: 0.0289437

Alignment:
VVWTTGACAGSTSBKD
-------CAGYDCC--

Original motif
Consensus sequence: DRVSASCTGTCAAWVV

Reverse complement motif
Consensus sequence: VVWTTGACAGSTSBKD

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: Forward
Position number: 9
Number of overlap: 7
Similarity score: 0.0291958

Alignment:
WVVHWTWACAGCGHHVT
--------CAGYDCC--

Original motif
Consensus sequence: AVDHCGCTGTWAWDVVW

Reverse complement motif
Consensus sequence: WVVHWTWACAGCGHHVT

Dataset #: 1 **Motif ID: 14** **Motif name: Motif 14**

Original motif

Consensus sequence: TSTGTR

Reverse complement motif

Consensus sequence: MACASA

Best Matches for Motif ID 14 (Highest to Lowest)

Motif ID:	UP00026
Motif name:	Zscan4_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	6
Number of overlap:	6
Similarity score:	0

Alignment:

BHHHTTGTGTGCKHVD
-----TSTGTR-----

Original motif

Consensus sequence: HVHRGCACACAAHHHV

Reverse complement motif

Consensus sequence: BHHHTTGTGTGCKHVD

Motif ID:	UP00042
Motif name:	Gm397_second
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:	6
Similarity score:	0.00200057

Alignment:
DVMVGCACACACKCVH
-----MACASA-----

Original motif

Consensus sequence: DVMVGCACACACKCVH

Reverse complement motif

Consensus sequence: HBGYGTGTGTGCVRVD

Motif ID:	UP00026
Motif name:	Zscan4_primary
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:	6
Similarity score:	0.0148405

Alignment:

```
DHVDTGTGCACAYAHDH
--------MACASA---
```

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:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	9
Number of overlap:	6
Similarity score:	0.0236149

Alignment:

```
HHDATGTGCACATAMDH
--------MACASA---
```

Original motif

Consensus sequence: HHDATGTGCACATAMDH

Reverse complement motif

Consensus sequence: HHRTATGTGCACATHHD

Motif ID:	UP00041
Motif name:	Foxj1_primary
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: 0.0266195

Alignment:
HDHRTAAACAAAHDDD
------MACASA----

Original motif
Consensus sequence: HDHRTAAACAAAHDDD

Reverse complement motif
Consensus sequence: DDDHTTTGTTTAMHDH

Dataset #: 1 Motif ID: 15 Motif name: Motif 15

Original motif
Consensus sequence: GCTCTTAA

Reverse complement motif
Consensus sequence: TTAAGAGC

Best Matches for Motif ID 15 (Highest to Lowest)

Motif ID:	UP00173
Motif name:	Hoxc13
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

Alignment:

```
DHWTTTTAMGAGBDHH
-----TTAAGAGC---
```

Original motif

Consensus sequence: HHDBCTCRTAAAAWHD

Reverse complement motif

Consensus sequence: DHWTTTTAMGAGBDHH

Motif ID:	UP00183
Motif name:	Hoxa13
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:	0.00510293

Alignment:

DVWTTTTACGAGBHDH
-----TTAAGAGC---

Original motif

Consensus sequence: HDHBCTCGTAAAAWBD

Reverse complement motif

Consensus sequence: DVWTTTTACGAGBHDH

Motif ID:	UP00228
Motif name:	Bapx1
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:	8
Similarity score:	0.0182341

Alignment:
DTBVTTAAGTGGTTHHV
----TTAAGAGC-----

Original motif

Consensus sequence: VHHAACCACTTAAVVAH

Reverse complement motif

Consensus sequence: DTBVTTAAGTGGTTHHV

Motif ID:	UP00135
Motif name:	Hoxc12
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:	0.0206445

Alignment:

```
DDVHWTTTACGACCKHH
------TTAAGAGC---
```

Original motif

Consensus sequence: HHRGGTCGTAAAWHBDH

Reverse complement motif

Consensus sequence: DDVHWTTTACGACCKHH

Motif ID:	UP00177

Motif name:	Hoxd12
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:	0.023305

Alignment:

```
DHDHTTTTACGACVDHD
------TTAAGAGC---
```

Original motif

Consensus sequence: HHDVGTCGTAAAAHHHD

Reverse complement motif

Consensus sequence: DHDHTTTTACGACVDHD

Dataset #: 1 Motif ID: 16 Motif name: Motif 16

Original motif

Consensus sequence: GGAAGRR

Reverse complement motif

Consensus sequence: MMCTTCC

Best Matches for Motif ID 16 (Highest to Lowest)

Motif ID:	UP00409
Motif name:	Elf5
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:	7
Similarity score:	0

Alignment:

```
DWACTTCCRSDTWV
-MMCTTCC------
```

Original motif

Consensus sequence: BWAHSMGGAAGTWD

Reverse complement motif

Consensus sequence: DWACTTCCRSDTWV

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:	Backward
Position number:	8
Number of overlap:	7
Similarity score:	0.00097547

Alignment:

```
BHHHACTTCCGGTHHBD
---MMCTTCC-------
```

Original motif

Consensus sequence: HVHHACCGGAAGTDHHV

Reverse complement motif

Consensus sequence: BHHHACTTCCGGTHHBD

Motif ID:	UP00420
Motif name:	Elk3
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: 0.00131169

Alignment:
VBVDMCTTCCGGTVBVD
---MMCTTCC-------

Original motif
Consensus sequence: DVBBACCGGAAGYDVVV

Reverse complement motif
Consensus sequence: VBVDMCTTCCGGTVBVD

Motif ID: UP00419
Motif name: Spic
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: 7
Similarity score: 0.00204701

Alignment:
DWACTTCCRCTTTB
-MMCTTCC------

Original motif

Reverse complement motif

Consensus sequence: VAAAGMGGAAGTWD

Consensus sequence: DWACTTCCRCTTTB

Motif ID:	UP00404
Motif name:	Elf2
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:	7
Similarity score:	0.00230178

Alignment:

```
DBBHACTTCCGGDWDB
---MMCTTCC------
```

Original motif

Consensus sequence: DBBHACTTCCGGDWDB

Reverse complement motif

Consensus sequence: BDWDCCGGAAGTHBBD

Dataset #: 1 **Motif ID: 17** **Motif name: Motif 17**

Original motif

Consensus sequence: CCDCCTCC

Reverse complement motif

Consensus sequence: GGAGGDGG

Best Matches for Motif ID 17 (Highest to Lowest)

Motif ID:	UP00021
Motif name:	Zfp281_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	5
Number of overlap:	8
Similarity score:	0.00331161

Alignment:

```
GKRGGGGGGGGGGBD
---GGAGGDGG----
```

Original motif

Consensus sequence: DBCCCCCCCCCCMYC

Reverse complement motif

Consensus sequence: GKRGGGGGGGGGGBD

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:	2
Number of overlap:	8
Similarity score:	0.00990566

Alignment:

```
HCCGCCCCCGCAHB
-CCDCCTCC-----
```

Original motif

Consensus sequence: HCCGCCCCCGCAHB

Reverse complement motif

Consensus sequence: VHTGCGGGGGCGGH

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:	Backward
Position number:	6
Number of overlap:	8
Similarity score:	0.0127556

Alignment:

```
BDHHMCGCCCCCTHVBB
----CCDCCTCC-----
```

Original motif

Consensus sequence: BDHHMCGCCCCCTHVBB

Reverse complement motif

Consensus sequence: BVVHAGGGGGCGRDHHB

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:	6
Number of overlap:	8

Similarity score: 0.0192546

Alignment:
BHHDYGGGGGGGGBVD
-----GGAGGDGG---

Original motif
Consensus sequence: HVBCCCCCCCCMHHHB

Reverse complement motif
Consensus sequence: BHHDYGGGGGGGGBVD

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: 10
Number of overlap: 8
Similarity score: 0.0193256

Alignment:
MHHHWHYTMCCHCCCACVAABVH
---------CCDCCTCC------

Original motif
Consensus sequence: MHHHWHYTMCCHCCCACVAABVH

Reverse complement motif
Consensus sequence: DVVTTVGTGGGHGGYAMHWHHHY

Dataset #: 1 **Motif ID: 18** **Motif name: Motif 18**

Original motif

Consensus sequence: CATGYATG

Reverse complement motif

Consensus sequence: CATKCATG

Best Matches for Motif ID 18 (Highest to Lowest)

Motif ID:	UP00236
Motif name:	Irx2
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:	8
Similarity score:	0.0094584

Alignment:

WVWDDTACATGTADDDW
-------CATGYATG--

Original motif

Consensus sequence: WDDDTACATGTADDWBW

Reverse complement motif

Consensus sequence: WVWDDTACATGTADDDW

Motif ID:	UP00051
Motif name:	Sox8_secondary
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:	0.0108518

Alignment:
DHATTCATGHVABV
-CATKCATG-----

Original motif

Consensus sequence: DHATTCATGHVABV

Reverse complement motif

Consensus sequence: VBTVHCATGAATDD

Motif ID:	UP00055
Motif name:	Hbp1_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:	0.0133688

Alignment:

```
VDHATTCATTSAWDDH
--CATKCATG------
```

Original motif

Consensus sequence: HHDWTSAATGAATDDB

Reverse complement motif

Consensus sequence: VDHATTCATTSAWDDH

Motif ID:	UP00223

Motif name:	Irx3_2226.1
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	8
Number of overlap:	8
Similarity score:	0.0143625

Alignment:

```
DHDWBTACATGTAHDDD
-------CATGYATG--
```

Original motif

Consensus sequence: DDDHTACATGTAVWDHD

Reverse complement motif

Consensus sequence: DHDWBTACATGTAHDDD

Motif ID:	UP00223
Motif name:	Irx3_0920.1
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	8
Number of overlap:	8

Similarity score: 0.0163294

Alignment:
DDWWBTACATGTADDDD
-------CATGYATG--

Original motif
Consensus sequence: DDDDTACATGTAVWWHD

Reverse complement motif
Consensus sequence: DDWWBTACATGTADDDD

Dataset #: 1 Motif ID: 19 Motif name: Motif 19

Original motif
Consensus sequence: CAGSCAG

Reverse complement motif
Consensus sequence: CTGSCTG

Best Matches for Motif ID 19 (Highest to Lowest)

Motif ID:	UP00000
Motif name:	Smad3_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:	7
Similarity score:	0

Alignment:

```
HDHDDCCAGACABBHVH
------CAGSCAG----
```

Original motif

Consensus sequence: HDHDDCCAGACABBHVH

Reverse complement motif

Consensus sequence: HVHBVTGTCTGGDDHDD

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:	4
Number of overlap:	7
Similarity score:	0.0064943

Alignment:

DVHCYTGCTGTGHDH
---CTGSCTG-----

Original motif
Consensus sequence: DDDCACAGCAKGHVD

Reverse complement motif
Consensus sequence: DVHCYTGCTGTGHDH

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:	6
Number of overlap:	7
Similarity score:	0.00786726

Alignment:
DVBCYTGCTGBGDDD
---CTGSCTG-----

Original motif
Consensus sequence: HHDCVCAGCAKGVVD

Reverse complement motif
Consensus sequence: DVBCYTGCTGBGDDD

Motif ID:	UP00092
Motif name:	Myb_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:	7
Similarity score:	0.0123596

Alignment:

```
DBVKGGCAGTTGGTHB
--CAGSCAG-------
```

Original motif

Consensus sequence: BDACCAACTGCCRBBH

Reverse complement motif

Consensus sequence: DBVKGGCAGTTGGTHB

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:	0.0127545

Alignment:

```
DVHCCTGCTGBGDDB
---CTGSCTG-----
```

Original motif

Consensus sequence: BHDCVCAGCAGGHVD

Reverse complement motif

Consensus sequence: DVHCCTGCTGBGDDB

Dataset #: 1 Motif ID: 20 Motif name: Motif 20

Original motif

Consensus sequence: CACGTR

Reverse complement motif

Consensus sequence: MACGTG

Best Matches for Motif ID 20 (Highest to Lowest)

Motif ID:	UP00050
Motif name:	Bhlhb2_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	9
Number of overlap:	6
Similarity score:	0

Alignment:

```
DDHBHBSTCACGTGAHBBDHHM
--------CACGTR--------
```

Original motif

Consensus sequence: RDHDBVDTCACGTGASBHVHDH

Reverse complement motif

Consensus sequence: DDHBHBSTCACGTGAHBBDHHM

Motif ID:	UP00060
Motif name:	Max_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:	6
Similarity score:	0.00504882

Alignment:

```
HHVBABCACGTGSTHD
------CACGTR----
```

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:	Reverse Complement
Direction:	Backward
Position number:	9

Number of overlap: 6
Similarity score: 0.0050835

Alignment:
ACHRBHDTCCACGTGYAHHBMHM
---------CACGTR--------

Original motif
Consensus sequence: YDYBDHTMCACGTGGADDBMDGT

Reverse complement motif
Consensus sequence: ACHRBHDTCCACGTGYAHHBMHM

Motif ID: UP00046
Motif name: Tcfe2a_primary
Species: Mus musculus
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 7
Number of overlap: 6
Similarity score: 0.0336216

Alignment:
DHDBHGCACCTGBDDVB
------CACGTR-----

Original motif

Reverse complement motif

Consensus sequence: VBHHVCAGGTGCDVDHD

Consensus sequence: DHDBHGCACCTGBDDVB

Motif ID:	UP00249
Motif name:	Nkx2-5
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:	6
Similarity score:	0.0339468

Alignment:

```
HDADCCACTTRAAWTT
-----CACGTR-----
```

Original motif

Consensus sequence: HDADCCACTTRAAWTT

Reverse complement motif

Consensus sequence: AAWTTMAAGTGGHTDH

Dataset #: 1 **Motif ID: 21** **Motif name: Motif 21**

Original motif

Consensus sequence: CCACYAGG

Reverse complement motif

Consensus sequence: CCTKGTGG

Best Matches for Motif ID 21 (Highest to Lowest)

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:	7
Number of overlap:	8
Similarity score:	0

Alignment:

```
HGDHVHKGACCACCCGGBGBGDB
---------CCACYAGG------
```

Original motif

Consensus sequence: BHCBCBCCGGGTGGTCYHVHDCH

Reverse complement motif

Consensus sequence: HGDHVHKGACCACCCGGBGBGDB

Motif ID:	UP00539
Motif name:	Gli2_v015681_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	11
Number of overlap:	8
Similarity score:	0.00212209

Alignment:

```
CBDMCMGGGTGGTCCHVBVBAH
----CCTKGTGG----------
```

Original motif

Consensus sequence: HTBVVVDGGACCACCCRGRDBG

Reverse complement motif

Consensus sequence: CBDMCMGGGTGGTCCHVBVBAH

Motif ID:	UP00540

Motif name:	Gli3_v016060_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:	8
Similarity score:	0.00654113

Alignment:

```
CVHBSCGGGTGGTCMHVHHCDH
----CCTKGTGG----------
```

Original motif

Consensus sequence: HDGHHBHRGACCACCCGSVDVG

Reverse complement motif

Consensus sequence: CVHBSCGGGTGGTCMHVHHCDH

Motif ID:	UP00047
Motif name:	Zbtb7b_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	8

Similarity score: 0.00890824

Alignment:
BDDRVGACCACCHBDVB
-------CCACYAGG--

Original motif
Consensus sequence: BDDRVGACCACCHBDVB

Reverse complement motif
Consensus sequence: BBDVHGGTGGTCBKDDB

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: 8
Similarity score: 0.0167011

Alignment:
DVHCCTGCTGBGDDB
---CCTKGTGG----

Original motif
Consensus sequence: BHDCVCAGCAGGHVD

Reverse complement motif
Consensus sequence: DVHCCTGCTGBGDDB

Dataset #: 1 **Motif ID: 22** **Motif name: Motif 22**

Original motif

Consensus sequence: CAGATYCC

Reverse complement motif

Consensus sequence: GGKATCTG

Best Matches for Motif ID 22 (Highest to Lowest)

Motif ID:	UP00232
Motif name:	Dobox4
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

Alignment:

DAWKGGGTATCTAWHWH
-----GGKATCTG----

Original motif

Consensus sequence: HWHWTAGATACCCYWTD

Reverse complement motif

Consensus sequence: DAWKGGGTATCTAWHWH

Motif ID:	UP00159
Motif name:	Six2
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:	0.0241128

Alignment:
DAKRGGGTATCACDWHT
-----GGKATCTG----

Original motif

Consensus sequence: DAKRGGGTATCACDWHT

Reverse complement motif

Consensus sequence: AHWDGTGATACCCMRTD

Motif ID:	UP00388
Motif name:	Six6_2267.4
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:	0.0250604

Alignment:

```
DATRGGGTATCAHDWHT
-----GGKATCTG----
```

Original motif

Consensus sequence: DATRGGGTATCAHDWHT

Reverse complement motif

Consensus sequence: AHWDHTGATACCCKATD

Motif ID:	UP00195

Motif name:	Six3
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:	0.0259075

Alignment:

```
DATRGGGTATCAHHWHT
-----GGKATCTG----
```

Original motif

Consensus sequence: DATRGGGTATCAHHWHT

Reverse complement motif

Consensus sequence: AHWHDTGATACCCKATH

Motif ID:	UP00192
Motif name:	Six1
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: 0.0264035

Alignment:
DHDRGGGTATCAHDHBT
-----GGKATCTG----

Original motif
Consensus sequence: DHDRGGGTATCAHDHBT

Reverse complement motif
Consensus sequence: AVHDHTGATACCCMDHH

Dataset #: 1 Motif ID: 23 Motif name: Motif 23

Original motif
Consensus sequence: GASAGAGA

Reverse complement motif
Consensus sequence: TCTCTSTC

Best Matches for Motif ID 23 (Highest to Lowest)

Motif ID:	UP00032
Motif name:	Gata3_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:	8
Similarity score:	0

Alignment:

```
HBHDVHDTCTTATCTHTDDHDV
----------TCTCTSTC----
```

Original motif

Consensus sequence: BDHDDADAGATAAGADHBDHVD

Reverse complement motif

Consensus sequence: HBHDVHDTCTTATCTHTDDHDV

Motif ID:	UP00040
Motif name:	Irf5_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:	8
Similarity score:	0.00356941

Alignment:

BHDAHCGAGARTHBV
--GASAGAGA-----

Original motif
Consensus sequence: BHDAHCGAGARTHBV

Reverse complement motif
Consensus sequence: VBHAKTCTCGHTHHV

Motif ID:	UP00258
Motif name:	Tgif2
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:	0.0059307

Alignment:
AABBAGCTGTCAAWVV
---TCTCTSTC-----

Original motif
Consensus sequence: AABBAGCTGTCAAWVV

Reverse complement motif
Consensus sequence: VBWTTGACAGCTVBTT

Motif ID:	UP00080
Motif name:	Gata5_secondary
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:	8
Similarity score:	0.00994332

Alignment:

```
VVHHWGATATCTMHBBV
-------TCTCTSTC--
```

Original motif

Consensus sequence: VVBHRAGATATCWDHBB

Reverse complement motif

Consensus sequence: VVHHWGATATCTMHBBV

Motif ID:	UP00186

Motif name:	Meis1
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:	8
Similarity score:	0.0114008

Alignment:

```
WAVBASCTGTCAAWVH
---TCTCTSTC-----
```

Original motif

Consensus sequence: WAVBASCTGTCAAWVH

Reverse complement motif

Consensus sequence: DBWTTGACAGSTBVTW

Dataset #: 1 Motif ID: 24 Motif name: Motif 24

Original motif

Consensus sequence: TGTGGGTG

Reverse complement motif

Consensus sequence: CACCCACA

Best Matches for Motif ID 24 (Highest to Lowest)

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:	12
Number of overlap:	8
Similarity score:	0

Alignment:

```
ABBBBVVRGACCACCCACRDBBM
-----------CACCCACA----
```

Original motif

Consensus sequence: ABBBBVVRGACCACCCACRDBBM

Reverse complement motif

Consensus sequence: YBVDMGTGGGTGGTCKVVBVBBT

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:	6
Number of overlap:	8
Similarity score:	0.00199912

Alignment:

```
DHDVATGCGGGTHVVH
-----TGTGGGTG---
```

Original motif

Consensus sequence: HVVHACCCGCATVDHD

Reverse complement motif

Consensus sequence: DHDVATGCGGGTHVVH

Motif ID:	UP00538
Motif name:	Gli1_v015681_secondary
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: 0.00682225

Alignment:
MHHHWHYTMCCHCCCACVAABVH
----------CACCCACA-----

Original motif
Consensus sequence: MHHHWHYTMCCHCCCACVAABVH

Reverse complement motif
Consensus sequence: DVVTTVGTGGGHGGYAMHWHHHY

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: 11
Number of overlap: 8
Similarity score: 0.0105432

Alignment:
DTVBDDRGACCACCCAGDWDGBH
----------CACCCACA-----

Original motif

Reverse complement motif

Consensus sequence: DTVBDDRGACCACCCAGDWDGBH

Consensus sequence: DBCDWHCTGGGTGGTCMDHBBAH

Motif ID:	UP00021
Motif name:	Zfp281_secondary
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:	0.011455

Alignment:

```
DKKWDACCCCCAHTDDV
----CACCCACA-----
```

Original motif

Consensus sequence: DKKWDACCCCCAHTDDV

Reverse complement motif

Consensus sequence: VDDAHTGGGGGTHWYYD

Dataset #: 1 **Motif ID: 25** **Motif name: Motif 25**

Original motif

Consensus sequence: CTGRGTTC

Reverse complement motif

Consensus sequence: GAACKCAG

Best Matches for Motif ID 25 (Highest to Lowest)

Motif ID:	UP00019
Motif name:	Zbtb12_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:	0.015191

Alignment:

```
BDHRBGTTCTAGATCVB
-CTGRGTTC--------
```

Original motif

Consensus sequence: BDHRBGTTCTAGATCVB

Reverse complement motif

Consensus sequence: BBGATCTAGAACBKHDB

Motif ID:	UP00006
Motif name:	Zic3_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:	8
Similarity score:	0.0235944

Alignment:

```
DDDCACAGCAKGHVD
GAACKCAG-------
```

Original motif

Consensus sequence: DDDCACAGCAKGHVD

Reverse complement motif

Consensus sequence: DVHCYTGCTGTGHDH

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:	8
Similarity score:	0.0252114

Alignment:

```
BHDCVCAGCAGGHVD
GAACKCAG-------
```

Original motif

Consensus sequence: BHDCVCAGCAGGHVD

Reverse complement motif

Consensus sequence: DVHCCTGCTGBGDDB

Motif ID:	UP00066
Motif name:	Hnf4a_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: 0.0255154

Alignment:
BDBVMGGGGTCAABHDV
---CTGRGTTC------

Original motif
Consensus sequence: BDBVMGGGGTCAABHDV

Reverse complement motif
Consensus sequence: BHHVTTGACCCCYVVDB

Motif ID: UP00148
Motif name: Hdx
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: 8
Similarity score: 0.0260414

Alignment:
BDBDHTGATTTCDHYDD
----CTGRGTTC-----

Original motif
Consensus sequence: DDKDHGAAATCAHHBHV

Reverse complement motif
Consensus sequence: BDBDHTGATTTCDHYDD

Dataset #: 1 **Motif ID: 26** **Motif name: Motif 26**

Original motif

Consensus sequence: CAGAGGAY

Reverse complement motif

Consensus sequence: KTCCTCTG

Best Matches for Motif ID 26 (Highest to Lowest)

Motif ID:	UP00046
Motif name:	Tcfe2a_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:	8
Similarity score:	0

Alignment:

HVDDVCAGATGKYHBBV
-----CAGAGGAY----

Original motif

Consensus sequence: HVDDVCAGATGKYHBBV

Reverse complement motif

Consensus sequence: VBBDMYCATCTGVHHBH

Motif ID:	UP00067
Motif name:	Lef1_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:	0.00361871

Alignment:
DDDYCCTTTGATCTDDV
--KTCCTCTG-------

Original motif

Consensus sequence: DDDYCCTTTGATCTDDV

Reverse complement motif

Consensus sequence: VDDAGATCAAAGGKDDD

Motif ID:	UP00083
Motif name:	Tcf7l2_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:	0.00571944

Alignment:

```
DDDYCCTTTGATSTDDV
--KTCCTCTG-------
```

Original motif

Consensus sequence: DDDYCCTTTGATSTDDV

Reverse complement motif

Consensus sequence: BDDASATCAAAGGMDDD

Motif ID:	UP00030

Motif name:	Sox11_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:	0.00988532

Alignment:

```
HHBTMCTTTGTTMDDVH
--KTCCTCTG-------
```

Original motif

Consensus sequence: HBDDRAACAAAGRABHH

Reverse complement motif

Consensus sequence: HHBTMCTTTGTTMDDVH

Motif ID:	UP00062
Motif name:	Sox4_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:	8

Similarity score: 0.0118578

Alignment:
HHBBMCTTTGTTHDDBH
--KTCCTCTG-------

Original motif
Consensus sequence: HBDDDAACAAAGRVBHH

Reverse complement motif
Consensus sequence: HHBBMCTTTGTTHDDBH

Dataset #: 1 Motif ID: 27 Motif name: Motif 27

Original motif
Consensus sequence: CSGCCGCC

Reverse complement motif
Consensus sequence: GGCGGCSG

Best Matches for Motif ID 27 (Highest to Lowest)

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:	2
Number of overlap:	8
Similarity score:	0.012469

Alignment:

```
HCCGCCCCCGCAHB
-CSGCCGCC-----
```

Original motif

Consensus sequence: HCCGCCCCCGCAHB

Reverse complement motif

Consensus sequence: VHTGCGGGGGCGGH

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:	Backward
Position number:	6
Number of overlap:	8
Similarity score:	0.012605

Alignment:

BDHHMCGCCCCCTHVBB
----CSGCCGCC-----

Original motif

Consensus sequence: BDHHMCGCCCCCTHVBB

Reverse complement motif

Consensus sequence: BVVHAGGGGGCGRDHHB

Motif ID:	UP00527
Motif name:	Foxn4_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:	0.024557

Alignment:
TCDAMVBGACGCMAKDDDVBBD
-----CSGCCGCC---------

Original motif

Consensus sequence: DBBVDDDRTRGCGTCBBYTHGA

Reverse complement motif

Consensus sequence: TCDAMVBGACGCMAKDDDVBBD

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:	7
Number of overlap:	8
Similarity score:	0.0251911

Alignment:

```
DHHBCCCCGCCAHHBHB
---CSGCCGCC------
```

Original motif

Consensus sequence: DHHBCCCCGCCAHHBHB

Reverse complement motif

Consensus sequence: BHBHDTGGCGGGGBDHD

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:	5
Number of overlap:	8
Similarity score:	0.026934

Alignment:

```
DBCCCCCCCCCCMYC
----CSGCCGCC---
```

Original motif

Consensus sequence: DBCCCCCCCCCCMYC

Reverse complement motif

Consensus sequence: GKRGGGGGGGGGBD

Dataset #: 1 Motif ID: 28 Motif name: Motif 28

Original motif

Consensus sequence: CTTCCTG

Reverse complement motif

Consensus sequence: CAGGAAG

Best Matches for Motif ID 28 (Highest to Lowest)

Motif ID:	UP00413
Motif name:	Elf4
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:	7
Similarity score:	0

Alignment:

```
DBBHACTTCCGGKWTH
-----CTTCCTG----
```

Original motif

Consensus sequence: DBBHACTTCCGGKWTH

Reverse complement motif

Consensus sequence: HAWYCCGGAAGTHBBD

Motif ID:	UP00404
Motif name:	Elf2
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:	0.00352958

Alignment:

```
DBBHACTTCCGGDWDB
-----CTTCCTG----
```

Original motif

Consensus sequence: DBBHACTTCCGGDWDB

Reverse complement motif

Consensus sequence: BDWDCCGGAAGTHBBD

Motif ID:	UP00013
Motif name:	Gabpa_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: 7
Similarity score: 0.00394394

Alignment:
HVHHACCGGAAGTDHHV
-----CAGGAAG-----

Original motif
Consensus sequence: HVHHACCGGAAGTDHHV

Reverse complement motif
Consensus sequence: BHHHACTTCCGGTHHBD

Motif ID: UP00420
Motif name: Elk3
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: 7
Similarity score: 0.00419952

Alignment:
DVBBACCGGAAGYDVVV
-----CAGGAAG-----

Original motif

Reverse complement motif

Consensus sequence: DVBBACCGGAAGYDVVV

Consensus sequence: VBVDMCTTCCGGTVBVD

Motif ID:	UP00410
Motif name:	Elk1
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:	0.006051

Alignment:

```
VVHBACCGGAAGTDBHD
-----CAGGAAG-----
```

Original motif

Consensus sequence: VVHBACCGGAAGTDBHD

Reverse complement motif

Consensus sequence: DHBDACTTCCGGTVHVB

Dataset #: 1 **Motif ID: 29** **Motif name: Motif 29**

Original motif

Consensus sequence: CATTTCY

Reverse complement motif

Consensus sequence: MGAAATG

Best Matches for Motif ID 29 (Highest to Lowest)

Motif ID:	UP00411
Motif name:	Erg
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:	7
Similarity score:	0

Alignment:

```
VBBVAYTTCCGGTDDB
---CATTTCY------
```

Original motif

Consensus sequence: VBBVAYTTCCGGTDDB

Reverse complement motif

Consensus sequence: BDDACCGGAAKTVBVB

Motif ID:	UP00424
Motif name:	Gm4881
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:	7
Similarity score:	3.61876e-06

Alignment:

```
VBBHAYTTCCGGTDDD
---CATTTCY------
```

Original motif

Consensus sequence: VBBHAYTTCCGGTDDD

Reverse complement motif

Consensus sequence: DHDACCGGAAMTHBVB

Motif ID:	UP00148

Motif name:	Hdx
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:	7
Similarity score:	0.000285971

Alignment:

```
DDKDHGAAATCAHHBHV
----MGAAATG------
```

Original motif

Consensus sequence: DDKDHGAAATCAHHBHV

Reverse complement motif

Consensus sequence: BDBDHTGATTTCDHYDD

Motif ID:	UP00418
Motif name:	Etv6
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:	7

Similarity score: 0.00137994

Alignment:
DVHBTACTTCCGGHTHB
----CATTTCY------

Original motif
Consensus sequence: DVHBTACTTCCGGHTHB

Reverse complement motif
Consensus sequence: BHAHCCGGAAGTABDVD

Motif ID:	UP00422
Motif name:	Etv3
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:	7
Similarity score:	0.00221043

Alignment:
VBBHAYTTCCGGTHDH
---CATTTCY------

Original motif
Consensus sequence: VBBHAYTTCCGGTHDH

Reverse complement motif
Consensus sequence: DHHACCGGAAKTHBBB

Dataset #: 1 **Motif ID: 30** **Motif name: Motif 30**

Original motif

Consensus sequence: CWGCAGC

Reverse complement motif

Consensus sequence: GCTGCWG

Best Matches for Motif ID 30 (Highest to Lowest)

Motif ID:	UP00052
Motif name:	Osr2_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	5
Number of overlap:	7
Similarity score:	0

Alignment:

HHHHGCTACKGTHVHH
----GCTGCWG-----

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:	0.00152865

Alignment:
DHBHGCTACKGTHDHH
----GCTGCWG-----

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:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	8
Number of overlap:	7
Similarity score:	0.00352181

Alignment:

```
HHDVVGCAGCTGVBKVB
---CWGCAGC-------
```

Original motif

Consensus sequence: BBYVVCAGCTGCBVHHD

Reverse complement motif

Consensus sequence: HHDVVGCAGCTGVBKVB

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:	0.0201867

Alignment:

```
DVHCCTGCTGBGDDB
---GCTGCWG-----
```

Original motif

Consensus sequence: BHDCVCAGCAGGHVD

Reverse complement motif

Consensus sequence: DVHCCTGCTGBGDDB

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: 0.0241363

Alignment:
HHDCVCAGCAKGVVD
-----CWGCAGC---

Original motif
Consensus sequence: HHDCVCAGCAKGVVD

Reverse complement motif
Consensus sequence: DVBCYTGCTGBGDDD

Dataset #: 1 Motif ID: 31 Motif name: Motif 31

Original motif
Consensus sequence: CATGYACA

Reverse complement motif
Consensus sequence: TGTKCATG

Best Matches for Motif ID 31 (Highest to Lowest)

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:	4
Number of overlap:	8
Similarity score:	0.00505399

Alignment:

```
HAHDTACATGTAVDWHT
------CATGYACA---
```

Original motif

Consensus sequence: HAHDTACATGTAVDWHT

Reverse complement motif

Consensus sequence: AHWDBTACATGTADHTH

Motif ID:	UP00097
Motif name:	Mtf1_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	8
Similarity score:	0.00507655

Alignment:

HDYTTGCACACGDHBH
--CATGYACA------

Original motif

Consensus sequence: DBDHCGTGTGCAAMDH

Reverse complement motif

Consensus sequence: HDYTTGCACACGDHBH

Motif ID:	UP00223
Motif name:	Irx3_2226.1
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	8
Number of overlap:	8
Similarity score:	0.00836655

Alignment:
DHDWBTACATGTAHDDD
-------CATGYACA--

Original motif

Consensus sequence: DDDHTACATGTAVWDHD

Reverse complement motif

Consensus sequence: DHDWBTACATGTAHDDD

Motif ID:	UP00179
Motif name:	Pou2f3
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:	8
Similarity score:	0.00847056

Alignment:

```
BHDTATGCAAATBHDV
---CATGYACA-----
```

Original motif

Consensus sequence: BHDTATGCAAATBHDV

Reverse complement motif

Consensus sequence: BHHVATTTGCATAHHV

Motif ID:	UP00191

Motif name:	Pou2f2
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:	0.00973489

Alignment:

```
BHDTATGCAAATDHDV
---CATGYACA-----
```

Original motif

Consensus sequence: BHDTATGCAAATDHDV

Reverse complement motif

Consensus sequence: BHHDATTTGCATAHHV

Dataset #: 1 **Motif ID: 32** **Motif name: Motif 32**

Original motif

Consensus sequence: KAATAAA

Reverse complement motif

Consensus sequence: TTTATTY

Best Matches for Motif ID 32 (Highest to Lowest)

Motif ID:	UP00180
Motif name:	Hoxd13
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:	7
Similarity score:	0

Alignment:

```
HDHYYAATAAAAHHHH
----KAATAAA-----
```

Original motif

Consensus sequence: HDHYYAATAAAAHHHH

Reverse complement motif

Consensus sequence: HDHHTTTTATTKKHDD

Motif ID:	UP00133
Motif name:	Cdx2
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:	0.000531578

Alignment:

```
HRHTTTTATYMCCVBD
----TTTATTY-----
```

Original motif

Consensus sequence: DVVGGYMATAAAAHKH

Reverse complement motif

Consensus sequence: HRHTTTTATYMCCVBD

Motif ID:	UP00134
Motif name:	Hoxb13
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: 7
Similarity score: 0.00373425

Alignment:
VRHCCAATAAAAWHHV
----KAATAAA-----

Original motif
Consensus sequence: VRHCCAATAAAAWHHV

Reverse complement motif
Consensus sequence: VDHWTTTTATTGGDKB

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: 7
Number of overlap: 7
Similarity score: 0.00617561

Alignment:
HDDDATTTTATTKVRDB
------TTTATTY----

Original motif

Reverse complement motif

Consensus sequence: VDKVYAATAAAATDDDH

Consensus sequence: HDDDATTTTATTKVRDB

Motif ID:	UP00217
Motif name:	Hoxa10
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:	7
Similarity score:	0.00873461

Alignment:

```
DHBGYAATAAAATDHW
----KAATAAA-----
```

Original motif

Consensus sequence: DHBGYAATAAAATDHW

Reverse complement motif

Consensus sequence: WDDATTTTATTMCBHD

Dataset #: 1 **Motif ID: 33** **Motif name: Motif 33**

Original motif

Consensus sequence: CTGGCTWC

Reverse complement motif

Consensus sequence: GWAGCCAG

Best Matches for Motif ID 33 (Highest to Lowest)

Motif ID:	UP00527
Motif name:	Foxn4_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	8
Number of overlap:	8
Similarity score:	0

Alignment:

```
TCDAMVBGACGCMAKDDDVBBD
-------GWAGCCAG-------
```

Original motif

Consensus sequence: DBBVDDDRTRGCGTCBBYTHGA

Reverse complement motif

Consensus sequence: TCDAMVBGACGCMAKDDDVBBD

Motif ID:	UP00045
Motif name:	Mafb_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:	8
Similarity score:	0.00527751

Alignment:

```
DMTWDGTCAGCADWTTH
--GWAGCCAG-------
```

Original motif

Consensus sequence: HAAWDTGCTGACDWARH

Reverse complement motif

Consensus sequence: DMTWDGTCAGCADWTTH

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:	2
Number of overlap:	8
Similarity score:	0.0073813

Alignment:

```
HDHDDCCAGACABBHVH
-GWAGCCAG--------
```

Original motif

Consensus sequence: HDHDDCCAGACABBHVH

Reverse complement motif

Consensus sequence: HVHBVTGTCTGGDDHDD

Motif ID:	UP00052
Motif name:	Osr2_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	8

Similarity score: 0.00888762

Alignment:
HHVHACRGTAGCHHHD
-------GWAGCCAG-

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: Original Motif
Direction: Backward
Position number: 2
Number of overlap: 8
Similarity score: 0.00951832

Alignment:
HHDHACRGTAGCHVHD
-------GWAGCCAG-

Original motif
Consensus sequence: HHDHACRGTAGCHVHD

Reverse complement motif
Consensus sequence: DHBHGCTACKGTHDHH

Dataset #: 1 **Motif ID: 34** **Motif name: Motif 34**

Original motif

Consensus sequence: TGKCCACA

Reverse complement motif

Consensus sequence: TGTGGYCA

Best Matches for Motif ID 34 (Highest to Lowest)

Motif ID:	UP00026
Motif name:	Zscan4_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

Alignment:

HDHTMTGTGCACADVHD
-----TGKCCACA----

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:	5
Number of overlap:	8
Similarity score:	0.00132554

Alignment:

HHRTATGTGCACATHHD
-----TGKCCACA----

Original motif

Consensus sequence: HHDATGTGCACATAMDH

Reverse complement motif

Consensus sequence: HHRTATGTGCACATHHD

Motif ID:	UP00539
Motif name:	Gli2_v016060_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:	0.0066252

Alignment:

```
DBCDWHCTGGGTGGTCMDHBBAH
---------TGTGGYCA------
```

Original motif

Consensus sequence: DTVBDDRGACCACCCAGDWDGBH

Reverse complement motif

Consensus sequence: DBCDWHCTGGGTGGTCMDHBBAH

Motif ID:	UP00538

Motif name:	Gli1_v015681_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:	8
Similarity score:	0.00683926

Alignment:

```
BTBVTCVTGGGTGGTCMVVDVBB
---------TGTGGYCA------
```

Original motif

Consensus sequence: BBBDVVRGACCACCCAVGABBAB

Reverse complement motif

Consensus sequence: BTBVTCVTGGGTGGTCMVVDVBB

Motif ID:	UP00053
Motif name:	Rxra_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:	8

Similarity score: 0.00716059

Alignment:
VHBHDGGGGTCAHBHBD
----TGTGGYCA-----

Original motif
Consensus sequence: DBHBDTGACCCCDHVHB

Reverse complement motif
Consensus sequence: VHBHDGGGGTCAHBHBD

Dataset #: 1 Motif ID: 35 Motif name: Motif 35

Original motif
Consensus sequence: ACAACCAY

Reverse complement motif
Consensus sequence: KTGGTTGT

Best Matches for Motif ID 35 (Highest to Lowest)

Motif ID:	UP00047
Motif name:	Zbtb7b_secondary
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:	8
Similarity score:	0

Alignment:

```
BDDRVGACCACCHBDVB
------ACAACCAY---
```

Original motif

Consensus sequence: BDDRVGACCACCHBDVB

Reverse complement motif

Consensus sequence: BBDVHGGTGGTCBKDDB

Motif ID:	UP00227
Motif name:	Duxl
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:	0.00363031

Alignment:

VHVVGTTGATTGGGTMK
-----KTGGTTGT----

Original motif

Consensus sequence: YRACCCAATCAACVVHV

Reverse complement motif

Consensus sequence: VHVVGTTGATTGGGTMK

Motif ID:	UP00166
Motif name:	Barhl1
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:	8
Similarity score:	0.00780833

Alignment:
DDVKTAATTGGTTDTH
-------KTGGTTGT-

Original motif

Consensus sequence: HAHAACCAATTARBDH

Reverse complement motif

Consensus sequence: DDVKTAATTGGTTDTH

Motif ID:	UP00540
Motif name:	Gli3_v015681_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	10
Number of overlap:	8
Similarity score:	0.0118241

Alignment:

```
YBVDMGTGGGTGGTCKVVBVBBT
------KTGGTTGT---------
```

Original motif

Consensus sequence: ABBBBVVRGACCACCCACRDBBM

Reverse complement motif

Consensus sequence: YBVDMGTGGGTGGTCKVVBVBBT

Motif ID:	UP00539

Motif name:	Gli2_v015681_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:	8
Similarity score:	0.0118666

Alignment:

```
CBDMCMGGGTGGTCCHVBVBAH
-----KTGGTTGT---------
```

Original motif

Consensus sequence: HTBVVVDGGACCACCCRGRDBG

Reverse complement motif

Consensus sequence: CBDMCMGGGTGGTCCHVBVBAH

Dataset #: 1 **Motif ID: 36** **Motif name: Motif 36**

Original motif

Consensus sequence: TCCTGGRA

Reverse complement motif

Consensus sequence: TMCCAGGA

Best Matches for Motif ID 36 (Highest to Lowest)

Motif ID:	UP00043
Motif name:	Bcl6b_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

Alignment:

```
VHHATTCCTYGAAAGD
-----TCCTGGRA---
```

Original motif

Consensus sequence: DCTTTCKAGGAATHHV

Reverse complement motif

Consensus sequence: VHHATTCCTYGAAAGD

Motif ID:	UP00038
Motif name:	Spdef_secondary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	8
Similarity score:	0.00573581

Alignment:

```
VDWYTAGGATGTHVDH
-TMCCAGGA-------
```

Original motif

Consensus sequence: DDBHACATCCTAKWDV

Reverse complement motif

Consensus sequence: VDWYTAGGATGTHVDH

Motif ID:	UP00413
Motif name:	Elf4
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: 8
Similarity score: 0.00675491

Alignment:
HAWYCCGGAAGTHBBD
--TCCTGGRA------

Original motif
Consensus sequence: DBBHACTTCCGGKWTH

Reverse complement motif
Consensus sequence: HAWYCCGGAAGTHBBD

Motif ID: UP00033
Motif name: Zfp410_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: 8
Similarity score: 0.0109341

Alignment:
BDDYYCATCCCATDDBD
-------TMCCAGGA--

Original motif

Reverse complement motif

Consensus sequence: DVDDATGGGATGKMDDV

Consensus sequence: BDDYYCATCCCATDDBD

Motif ID:	UP00410
Motif name:	Elk1
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:	8
Similarity score:	0.012227

Alignment:

```
DHBDACTTCCGGTVHVB
-------TCCTGGRA--
```

Original motif

Consensus sequence: VVHBACCGGAAGTDBHD

Reverse complement motif

Consensus sequence: DHBDACTTCCGGTVHVB

Dataset #: 1 **Motif ID: 37** **Motif name: Motif 37**

Original motif

Consensus sequence: CTGAGCYA

Reverse complement motif

Consensus sequence: TKGCTCAG

Best Matches for Motif ID 37 (Highest to Lowest)

Motif ID:	UP00098
Motif name:	Rfx3_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:

```
HHHHDVVGTTGCTAHGGDHBAHH
--------TKGCTCAG-------
```

Original motif

Consensus sequence: HDTBHHCCHTAGCAACVVDHHHH

Reverse complement motif

Consensus sequence: HHHHDVVGTTGCTAHGGDHBAHH

Motif ID:	UP00103
Motif name:	Jundm2_secondary
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:	8
Similarity score:	0.00321157

Alignment:

```
HDDKTGASTCAKHRDB
----TKGCTCAG----
```

Original motif

Consensus sequence: VDKDRTGASTCAYHDH

Reverse complement motif

Consensus sequence: HDDKTGASTCAKHRDB

Motif ID:	UP00076

Motif name:	Rfxdc2_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:	8
Similarity score:	0.00414765

Alignment:

```
DVSGTTGCTAHGVBB
----TKGCTCAG---
```

Original motif

Consensus sequence: BBVCHTAGCAACSVD

Reverse complement motif

Consensus sequence: DVSGTTGCTAHGVBB

Motif ID:	UP00056
Motif name:	Rfx4_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: 0.00415736

Alignment:
DVSGTTGCTAHGGHV
----TKGCTCAG---

Original motif
Consensus sequence: BHCCHTAGCAACSVD

Reverse complement motif
Consensus sequence: DVSGTTGCTAHGGHV

Motif ID: UP00045
Motif name: Mafb_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: 8
Similarity score: 0.0106486

Alignment:
DMTWDGTCAGCADWTTH
--TKGCTCAG-------

Original motif
Consensus sequence: HAAWDTGCTGACDWARH

Reverse complement motif
Consensus sequence: DMTWDGTCAGCADWTTH

Dataset #: 1 **Motif ID: 38** **Motif name: Motif 38**

Original motif

Consensus sequence: GAGTTACA

Reverse complement motif

Consensus sequence: TGTAACTC

Best Matches for Motif ID 38 (Highest to Lowest)

Motif ID:	UP00056
Motif name:	Rfx4_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	8
Similarity score:	0

Alignment:

HHBCHTRGWTACVVH
-----GAGTTACA--

Original motif

Consensus sequence: HHBCHTRGWTACVVH

Reverse complement motif

Consensus sequence: HVVGTAWCKADGBHH

Motif ID:	UP00103
Motif name:	Jundm2_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	8
Similarity score:	0.00296274

Alignment:

VDKDRTGASTCAYHDH
------GAGTTACA--

Original motif

Consensus sequence: VDKDRTGASTCAYHDH

Reverse complement motif

Consensus sequence: HDDKTGASTCAKHRDB

Motif ID:	UP00193
Motif name:	Rhox11_1765.2
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:	8
Similarity score:	0.00944938

Alignment:

```
AVDVCGCTGTWAWDVVW
-------TGTAACTC--
```

Original motif

Consensus sequence: AVDVCGCTGTWAWDVVW

Reverse complement motif

Consensus sequence: WVVHWTWACAGCGBHBT

Motif ID:	UP00205

Motif name:	Pknox2
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	8
Similarity score:	0.00964683

Alignment:

```
HAVSRSCTGTCAATHB
-------TGTAACTC-
```

Original motif

Consensus sequence: HAVSRSCTGTCAATHB

Reverse complement motif

Consensus sequence: VHATTGACAGSKSVTH

Motif ID:	UP00236
Motif name:	Irx2
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:	8

Similarity score: 0.00974779

Alignment:
WVWDDTACATGTADDDW
-GAGTTACA--------

Original motif
Consensus sequence: WDDDTACATGTADDWBW

Reverse complement motif
Consensus sequence: WVWDDTACATGTADDDW

Dataset #: 1 Motif ID: 39 Motif name: Motif 39

Original motif
Consensus sequence: BAGAAA

Reverse complement motif
Consensus sequence: TTTCTB

Best Matches for Motif ID 39 (Highest to Lowest)

Motif ID:	UP00040
Motif name:	Irf5_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

Alignment:

```
BDKGTTTCGKTWDDD
----TTTCTB-----
```

Original motif

Consensus sequence: DDDWAYCGAAACYDV

Reverse complement motif

Consensus sequence: BDKGTTTCGKTWDDD

Motif ID:	UP00018
Motif name:	Irf4_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:	6
Similarity score:	0.00208221

Alignment:

VDDAYCGAAACYDVA
----BAGAAA-----

Original motif
Consensus sequence: VDDAYCGAAACYDVA

Reverse complement motif
Consensus sequence: TBDKGTTTCGMTDHV

Motif ID:	UP00032
Motif name:	Gata3_primary
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:	6
Similarity score:	0.00450619

Alignment:
BDHDDADAGATAAGADHBDHVD
------BAGAAA----------

Original motif
Consensus sequence: BDHDDADAGATAAGADHBDHVD

Reverse complement motif
Consensus sequence: HBHDVHDTCTTATCTHTDDHDV

Motif ID:	UP00074
Motif name:	Isgf3g_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:	0.00517682

Alignment:

```
TDAGTTTCGWTTKDV
----TTTCTB-----
```

Original motif

Consensus sequence: VDRAAWCGAAACTDA

Reverse complement motif

Consensus sequence: TDAGTTTCGWTTKDV

Motif ID:	UP00011

Motif name:	Irf6_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:	0.00721031

Alignment:

```
HDDAHCGAAACYAVDDD
----BAGAAA-------
```

Original motif

Consensus sequence: HDDAHCGAAACYAVDDD

Reverse complement motif

Consensus sequence: DHDBTKGTTTCGHTHDD

Dataset #: 1 **Motif ID: 40** **Motif name: Motif 40**

Original motif

Consensus sequence: ARTCCCAG

Reverse complement motif

Consensus sequence: CTGGGAMT

Best Matches for Motif ID 40 (Highest to Lowest)

Motif ID:	UP00216
Motif name:	Obox1
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

Alignment:

```
DHDGTTAATCCCCKTDD
------ARTCCCAG---
```

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:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	8
Number of overlap:	8
Similarity score:	0.00997246

Alignment:

```
VHHWATTAATCCCMDHH
-------ARTCCCAG--
```

Original motif

Consensus sequence: DDDRGGGATTAATWHHB

Reverse complement motif

Consensus sequence: VHHWATTAATCCCMDHH

Motif ID:	UP00160
Motif name:	Obox3
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: 0.0101137

Alignment:
HHWGTTAATCCCCCBBH
------ARTCCCAG---

Original motif
Consensus sequence: HBVGGGGGATTAACWHH

Reverse complement motif
Consensus sequence: HHWGTTAATCCCCCBBH

Motif ID: UP00033
Motif name: Zfp410_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: 0.0101427

Alignment:
BDDYYCATCCCATDDBD
-----ARTCCCAG----

Original motif

Reverse complement motif

Consensus sequence: DVDDATGGGATGKMDDV

Consensus sequence: BDDYYCATCCCATDDBD

Motif ID:	UP00208
Motif name:	Obox5_2284.1
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:	8
Similarity score:	0.0112114

Alignment:

```
DHHAHTTAATCCCKVDH
-------ARTCCCAG--
```

Original motif

Consensus sequence: HDVRGGGATTAAHTHHH

Reverse complement motif

Consensus sequence: DHHAHTTAATCCCKVDH

Dataset #: 1 **Motif ID: 41** **Motif name: Motif 41**

Original motif

Consensus sequence: CCTGCTGK

Reverse complement motif

Consensus sequence: YCAGCAGG

Best Matches for Motif ID 41 (Highest to Lowest)

Motif ID:	UP00102
Motif name:	Zic1_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:	8
Similarity score:	0

Alignment:

```
DVHCCTGCTGBGDDB
---CCTGCTGK----
```

Original motif

Consensus sequence: BHDCVCAGCAGGHVD

Reverse complement motif

Consensus sequence: DVHCCTGCTGBGDDB

Motif ID:	UP00057
Motif name:	Zic2_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:	8
Similarity score:	0.0043517

Alignment:

```
DVBCYTGCTGBGDDD
---CCTGCTGK----
```

Original motif

Consensus sequence: HHDCVCAGCAKGVVD

Reverse complement motif

Consensus sequence: DVBCYTGCTGBGDDD

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:	5
Number of overlap:	8
Similarity score:	0.00761363

Alignment:

```
DVHCYTGCTGTGHDH
---CCTGCTGK----
```

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:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	7
Number of overlap:	8

Similarity score: 0.0402767

Alignment:
DMTWDGTCAGCADWTTH
------YCAGCAGG---

Original motif
Consensus sequence: HAAWDTGCTGACDWARH

Reverse complement motif
Consensus sequence: DMTWDGTCAGCADWTTH

Motif ID: UP00046
Motif name: Tcfe2a_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: 0.0490068

Alignment:
VBHHVCAGGTGCDVDHD
-YCAGCAGG--------

Original motif
Consensus sequence: VBHHVCAGGTGCDVDHD

Reverse complement motif
Consensus sequence: DHDBHGCACCTGBDDVB

Dataset #: 1 **Motif ID: 42** **Motif name: Motif 42**

Original motif

Consensus sequence: CGCGCSG

Reverse complement motif

Consensus sequence: CSGCGCG

Best Matches for Motif ID 42 (Highest to Lowest)

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:	8
Number of overlap:	7
Similarity score:	0

Alignment:

WHSGCGCGCCHTDHB
-CSGCGCG-------

Original motif
Consensus sequence: VHDADGGCGCGCSHW

Reverse complement motif
Consensus sequence: WHSGCGCGCCHTDHB

Motif ID:	UP00001
Motif name:	E2F2_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	5
Number of overlap:	7
Similarity score:	0.000129734

Alignment:
HHVGCGCGCCKTDHB
----CGCGCSG----

Original motif
Consensus sequence: VHDARGGCGCGCVHH

Reverse complement motif
Consensus sequence: HHVGCGCGCCKTDHB

Motif ID:	UP00065
Motif name:	Zfp161_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	8
Number of overlap:	7
Similarity score:	0.0145336

Alignment:

```
DMMDGMGCGCGCGCHD
-------CGCGCSG--
```

Original motif

Consensus sequence: DDGCGCGCGCRCHYRD

Reverse complement motif

Consensus sequence: DMMDGMGCGCGCGCHD

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:	3
Number of overlap:	7
Similarity score:	0.016879

Alignment:

```
VVGCVMTGCGCGKC
-----CSGCGCG--
```

Original motif

Consensus sequence: GYCGCGCARBGCVB

Reverse complement motif

Consensus sequence: VVGCVMTGCGCGKC

Motif ID:	UP00526
Motif name:	Foxn1_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	8
Number of overlap:	7

Similarity score: 0.0219936

Alignment:
HDWHMHGACGCGCGTRBVVBHW
-------CSGCGCG--------

Original motif
Consensus sequence: WHVBVVMACGCGCGTCDYHWDH

Reverse complement motif
Consensus sequence: HDWHMHGACGCGCGTRBVVBHW

Dataset #: 1 Motif ID: 43 Motif name: Motif 43

Original motif
Consensus sequence: ACATYTA

Reverse complement motif
Consensus sequence: TAMATGT

Best Matches for Motif ID 43 (Highest to Lowest)

Motif ID:	UP00236
Motif name:	Irx2
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

Alignment:

```
WVWDDTACATGTADDDW
-----TAMATGT-----
```

Original motif

Consensus sequence: WDDDTACATGTADDWBW

Reverse complement motif

Consensus sequence: WVWDDTACATGTADDDW

Motif ID:	UP00150
Motif name:	Irx6
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:	3.6652e-05

Alignment:

AHWDBTACATGTADHTH
-----TAMATGT-----

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:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	6
Number of overlap:	7
Similarity score:	0.000501187

Alignment:
DHDWBTACATGTAHDDD
-----TAMATGT-----

Original motif
Consensus sequence: DDDHTACATGTAVWDHD

Reverse complement motif
Consensus sequence: DHDWBTACATGTAHDDD

Motif ID:	UP00223
Motif name:	Irx3_0920.1
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:	0.00389424

Alignment:

```
DDWWBTACATGTADDDD
-----TAMATGT-----
```

Original motif

Consensus sequence: DDDDTACATGTAVWWHD

Reverse complement motif

Consensus sequence: DDWWBTACATGTADDDD

Motif ID:	UP00250

Motif name:	Irx5
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:	0.0071841

Alignment:

```
WVTDHWACATGTWHDDD
-----TAMATGT-----
```

Original motif

Consensus sequence: DDDHWACATGTWHDABW

Reverse complement motif

Consensus sequence: WVTDHWACATGTWHDDD

Dataset #: 1 Motif ID: 44 Motif name: Motif 44

Original motif

Consensus sequence: GDAAACA

Reverse complement motif

Consensus sequence: TGTTTDC

Best Matches for Motif ID 44 (Highest to Lowest)

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:	7
Similarity score:	0

Alignment:

```
DDAATGTAAACAAAVVB
-----GDAAACA-----
```

Original motif

Consensus sequence: DDAATGTAAACAAAVVB

Reverse complement motif

Consensus sequence: BBVTTTGTTTACATTDD

Motif ID:	UP00073
Motif name:	Foxa2_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:	7
Similarity score:	0.00709733

Alignment:

```
BDVTTTKTTTACWTWHH
-----TGTTTDC-----
```

Original motif

Consensus sequence: HHWAWGTAAAYAAAVDB

Reverse complement motif

Consensus sequence: BDVTTTKTTTACWTWHH

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:	Backward
Position number:	6

Number of overlap: 7
Similarity score: 0.00723594

Alignment:
DWAATRTAAACAAWVVB
-----GDAAACA-----

Original motif
Consensus sequence: DWAATRTAAACAAWVVB

Reverse complement motif
Consensus sequence: VVVWTTGTTTAMATTWD

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: Backward
Position number: 6
Number of overlap: 7
Similarity score: 0.0079365

Alignment:
HDHADGTAAACAAAVVH
-----GDAAACA-----

Original motif

Reverse complement motif

Consensus sequence: HDHADGTAAACAAAVVH

Consensus sequence: DVVTTTGTTTACDTHDH

Motif ID:	UP00041
Motif name:	Foxj1_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	7
Number of overlap:	7
Similarity score:	0.0162324

Alignment:

```
HDHRTAAACAAAHDDD
---GDAAACA------
```

Original motif

Consensus sequence: HDHRTAAACAAAHDDD

Reverse complement motif

Consensus sequence: DDDHTTTGTTTAMHDH

Dataset #: 1 **Motif ID: 45** **Motif name: Motif 45**

Original motif

Consensus sequence: GSAGAGA

Reverse complement motif

Consensus sequence: TCTCTSC

Best Matches for Motif ID 45 (Highest to Lowest)

Motif ID:	UP00031
Motif name:	Zbtb3_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:	7
Similarity score:	0

Alignment:

```
DDBBBCACTGCABTBBB
----TCTCTSC------
```

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:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	6
Number of overlap:	7
Similarity score:	0.00147657

Alignment:

```
BHHWCCGAGAMTVVB
---GSAGAGA-----
```

Original motif

Consensus sequence: VVBAYTCTCGGWHDB

Reverse complement motif

Consensus sequence: BHHWCCGAGAMTVVB

Motif ID:	UP00040

Motif name:	Irf5_secondary
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:	7
Similarity score:	0.00225471

Alignment:

```
BHDAHCGAGARTHBV
---GSAGAGA-----
```

Original motif

Consensus sequence: BHDAHCGAGARTHBV

Reverse complement motif

Consensus sequence: VBHAKTCTCGHTHHV

Motif ID:	UP00026
Motif name:	Zscan4_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:	7

Similarity score: 0.00336112

Alignment:
HDHTMTGTGCACADVHD
---TCTCTSC-------

Original motif
Consensus sequence: DHVDTGTGCACAYAHDH

Reverse complement motif
Consensus sequence: HDHTMTGTGCACADVHD

Motif ID: UP00032
Motif name: Gata3_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: 7
Similarity score: 0.00351001

Alignment:
BDHDDADAGATAAGADHBDHVD
-----GSAGAGA----------

Original motif
Consensus sequence: BDHDDADAGATAAGADHBDHVD

Reverse complement motif
Consensus sequence: HBHDVHDTCTTATCTHTDDHDV

Dataset #: 2 **Motif ID: 46** **Motif name: Motif 46**

Original motif

Consensus sequence: AGRKGGCR

Reverse complement motif

Consensus sequence: KGCCYKCT

Best Matches for Motif ID 46 (Highest to Lowest)

Motif ID:	UP00002
Motif name:	Sp4_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	6
Number of overlap:	8
Similarity score:	0

Alignment:

BVVHAGGGGGCGRDHHB
----AGRKGGCR-----

Original motif
Consensus sequence: BDHHMCGCCCCCTHVBB

Reverse complement motif
Consensus sequence: BVVHAGGGGGCGRDHHB

Motif ID:	UP00079
Motif name:	Esrra_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:	0.0154192

Alignment:
VKBBAGGGGTCAHDBBH
----AGRKGGCR-----

Original motif
Consensus sequence: VKBBAGGGGTCAHDBBH

Reverse complement motif
Consensus sequence: DBBHHTGACCCCTBBYV

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:	3
Number of overlap:	8
Similarity score:	0.0160089

Alignment:

```
VHTGCGGGGGCGGH
----AGRKGGCR--
```

Original motif

Consensus sequence: HCCGCCCCCGCAHB

Reverse complement motif

Consensus sequence: VHTGCGGGGGCGGH

Motif ID:	UP00010

Motif name:	Tcfap2b_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:	8
Similarity score:	0.0241611

Alignment:

```
HTGCCMTVKGGCMD
-KGCCYKCT-----
```

Original motif

Consensus sequence: DYGCCYBARGGCAH

Reverse complement motif

Consensus sequence: HTGCCMTVKGGCMD

Motif ID:	UP00070
Motif name:	Gcm1_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	8

Similarity score: 0.0267457

Alignment:
DDBVHATAGGGGRBRMB
-------AGRKGGCR--

Original motif
Consensus sequence: DDBVHATAGGGGRBRMB

Reverse complement motif
Consensus sequence: BYMBKCCCCTATDVBHD

Dataset #: 2 Motif ID: 47 Motif name: Motif 47

Original motif
Consensus sequence: CAGYDCC

Reverse complement motif
Consensus sequence: GGDKCTG

Best Matches for Motif ID 47 (Highest to Lowest)

Motif ID:	UP00205
Motif name:	Pknox2
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:	0.0213831

Alignment:

```
HAVSRSCTGTCAATHB
--GGDKCTG-------
```

Original motif

Consensus sequence: HAVSRSCTGTCAATHB

Reverse complement motif

Consensus sequence: VHATTGACAGSKSVTH

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:	0.0245571

Alignment:

DABWWTGACAGCTVVBD
--------CAGYDCC--

Original motif

Consensus sequence: DABWWTGACAGCTVVBD

Reverse complement motif

Consensus sequence: DBVVAGCTGTCAWWVTH

Motif ID:	UP00203
Motif name:	Pknox1
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:	0.0300471

Alignment:
VVWTTGACAGSTSBKD
-------CAGYDCC--

Original motif

Consensus sequence: DRVSASCTGTCAAWVV

Reverse complement motif

Consensus sequence: VVWTTGACAGSTSBKD

Motif ID:	UP00258
Motif name:	Tgif2
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:	0.0300683

Alignment:

```
VBWTTGACAGCTVBTT
-------CAGYDCC--
```

Original motif

Consensus sequence: AABBAGCTGTCAAWVV

Reverse complement motif

Consensus sequence: VBWTTGACAGCTVBTT

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:	Forward
Position number:	9
Number of overlap:	7
Similarity score:	0.0305033

Alignment:

```
WVVHWTWACAGCGHHVT
--------CAGYDCC--
```

Original motif

Consensus sequence: AVDHCGCTGTWAWDVVW

Reverse complement motif

Consensus sequence: WVVHWTWACAGCGHHVT

Dataset #: 2 Motif ID: 48 Motif name: Motif 48

Original motif

Consensus sequence: CCACYAGR

Reverse complement motif

Consensus sequence: MCTKGTGG

Best Matches for Motif ID 48 (Highest to Lowest)

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:	7
Number of overlap:	8
Similarity score:	0

Alignment:

```
HGDHVHKGACCACCCGGBGBGDB
---------CCACYAGR------
```

Original motif

Consensus sequence: BHCBCBCCGGGTGGTCYHVHDCH

Reverse complement motif

Consensus sequence: HGDHVHKGACCACCCGGBGBGDB

Motif ID:	UP00539
Motif name:	Gli2_v015681_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	11
Number of overlap:	8
Similarity score:	0.000875703

Alignment:

```
CBDMCMGGGTGGTCCHVBVBAH
----MCTKGTGG----------
```

Original motif

Consensus sequence: HTBVVVDGGACCACCCRGRDBG

Reverse complement motif

Consensus sequence: CBDMCMGGGTGGTCCHVBVBAH

Motif ID:	UP00047
Motif name:	Zbtb7b_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: 8
Similarity score: 0.00261558

Alignment:
BDDRVGACCACCHBDVB
-------CCACYAGR--

Original motif
Consensus sequence: BDDRVGACCACCHBDVB

Reverse complement motif
Consensus sequence: BBDVHGGTGGTCBKDDB

Motif ID: UP00540
Motif name: Gli3_v016060_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: 8
Similarity score: 0.00296024

Alignment:
CVHBSCGGGTGGTCMHVHHCDH
----MCTKGTGG----------

Original motif

Reverse complement motif

Consensus sequence: HDGHHBHRGACCACCCGSVDVG

Consensus sequence: CVHBSCGGGTGGTCMHVHHCDH

Motif ID:	UP00046
Motif name:	Tcfe2a_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:	0.0161251

Alignment:

```
VBHHVCAGGTGCDVDHD
----MCTKGTGG-----
```

Original motif

Consensus sequence: VBHHVCAGGTGCDVDHD

Reverse complement motif

Consensus sequence: DHDBHGCACCTGBDDVB

Dataset #: 2 **Motif ID: 49** **Motif name: Motif 49**

Original motif

Consensus sequence: CTGGCCTC

Reverse complement motif

Consensus sequence: GAGGCCAG

Best Matches for Motif ID 49 (Highest to Lowest)

Motif ID:	UP00527
Motif name:	Foxn4_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	8
Number of overlap:	8
Similarity score:	0

Alignment:

```
TCDAMVBGACGCMAKDDDVBBD
-------GAGGCCAG-------
```

Original motif

Consensus sequence: DBBVDDDRTRGCGTCBBYTHGA

Reverse complement motif

Consensus sequence: TCDAMVBGACGCMAKDDDVBBD

Motif ID:	UP00079
Motif name:	Esrra_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	6
Number of overlap:	8
Similarity score:	0.00199504

Alignment:

```
DBBHHTGACCCCTBBYV
----CTGGCCTC-----
```

Original motif

Consensus sequence: VKBBAGGGGTCAHDBBH

Reverse complement motif

Consensus sequence: DBBHHTGACCCCTBBYV

Motif ID:	UP00035

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:	3
Number of overlap:	8
Similarity score:	0.0108368

Alignment:

```
DDBHGGTTGGCATVBD
------CTGGCCTC--
```

Original motif

Consensus sequence: DBBATGCCAACCHVHH

Reverse complement motif

Consensus sequence: DDBHGGTTGGCATVBD

Motif ID:	UP00045
Motif name:	Mafb_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: 0.0117596

Alignment:
DMTWDGTCAGCADWTTH
--GAGGCCAG-------

Original motif
Consensus sequence: HAAWDTGCTGACDWARH

Reverse complement motif
Consensus sequence: DMTWDGTCAGCADWTTH

Motif ID:	UP00053
Motif name:	Rxra_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:	8
Similarity score:	0.0118075

Alignment:
VHBHDGGGGTCAHBHBD
-----GAGGCCAG----

Original motif
Consensus sequence: DBHBDTGACCCCDHVHB

Reverse complement motif
Consensus sequence: VHBHDGGGGTCAHBHBD

Dataset #: 2 **Motif ID: 50** **Motif name: Motif 50**

Original motif

Consensus sequence: AGRAA

Reverse complement motif

Consensus sequence: TTMCT

Best Matches for Motif ID 50 (Highest to Lowest)

Motif ID:	UP00043
Motif name:	Bcl6b_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

Alignment:

DCTTTCKAGGAATHHV
-------AGRAA----

Original motif
Consensus sequence: DCTTTCKAGGAATHHV

Reverse complement motif
Consensus sequence: VHHATTCCTYGAAAGD

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:	5
Number of overlap:	5
Similarity score:	0.00150766

Alignment:
BWAHSMGGAAGTWD
-----AGRAA----

Original motif
Consensus sequence: BWAHSMGGAAGTWD

Reverse complement motif
Consensus sequence: DWACTTCCRSDTWV

Motif ID:	UP00090
Motif name:	Elf3_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:	5
Similarity score:	0.00378425

Alignment:

```
TDAMTTCCYYDTD
----TTMCT----
```

Original motif

Consensus sequence: DAHMMGGAARTDA

Reverse complement motif

Consensus sequence: TDAMTTCCYYDTD

Motif ID:	UP00181

Motif name:	Barx1
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:	5
Similarity score:	0.00386973

Alignment:

```
WTHHMSKAATTMVKHY
---------TTMCT--
```

Original motif

Consensus sequence: MHRVYAATTRSYDHAW

Reverse complement motif

Consensus sequence: WTHHMSKAATTMVKHY

Motif ID:	UP00085
Motif name:	Sfpi1_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:	5

Similarity score: 0.00623266

Alignment:
BDAWGVGGAAGTDH
-----AGRAA----

Original motif
Consensus sequence: BDAWGVGGAAGTDH

Reverse complement motif
Consensus sequence: HDACTTCCBCWTDV

Dataset #: 2 Motif ID: 51 Motif name: Motif 51

Original motif
Consensus sequence: GAGTTACA

Reverse complement motif
Consensus sequence: TGTAACTC

Best Matches for Motif ID 51 (Highest to Lowest)

Motif ID:	UP00103
Motif name:	Jundm2_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif

Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	8
Similarity score:	0

Alignment:

```
VDKDRTGASTCAYHDH
------GAGTTACA--
```

Original motif

Consensus sequence: VDKDRTGASTCAYHDH

Reverse complement motif

Consensus sequence: HDDKTGASTCAKHRDB

Motif ID:	UP00193
Motif name:	Rhox11_1765.2
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:	0.00122205

Alignment:

AVDVCGCTGTWAWDVVW
-------TGTAACTC--

Original motif

Consensus sequence: AVDVCGCTGTWAWDVVW

Reverse complement motif

Consensus sequence: WVVHWTWACAGCGBHBT

Motif ID:	UP00205
Motif name:	Pknox2
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	8
Similarity score:	0.0014195

Alignment:

HAVSRSCTGTCAATHB
-------TGTAACTC-

Original motif

Consensus sequence: HAVSRSCTGTCAATHB

Reverse complement motif

Consensus sequence: VHATTGACAGSKSVTH

Motif ID:	UP00236
Motif name:	Irx2
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:	8
Similarity score:	0.00152046

Alignment:

```
WVWDDTACATGTADDDW
-GAGTTACA--------
```

Original motif

Consensus sequence: WDDDTACATGTADDWBW

Reverse complement motif

Consensus sequence: WVWDDTACATGTADDDW

Motif ID: UP00193

Motif name:	Rhox11_2205.1
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:	8
Similarity score:	0.00217941

Alignment:

```
AVDHCGCTGTWAWDVVW
-------TGTAACTC--
```

Original motif

Consensus sequence: AVDHCGCTGTWAWDVVW

Reverse complement motif

Consensus sequence: WVVHWTWACAGCGHHVT

Dataset #: 2 Motif ID: 52 Motif name: Motif 52

Original motif

Consensus sequence: AAATAAAW

Reverse complement motif

Consensus sequence: WTTTATTT

Best Matches for Motif ID 52 (Highest to Lowest)

Motif ID:	UP00133
Motif name:	Cdx2
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:	8
Similarity score:	0

Alignment:

```
DVVGGYMATAAAAHKH
-----AAATAAAW---
```

Original motif

Consensus sequence: DVVGGYMATAAAAHKH

Reverse complement motif

Consensus sequence: HRHTTTTATYMCCVBD

Motif ID:	UP00180
Motif name:	Hoxd13
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:	8
Similarity score:	0.00105399

Alignment:

```
HDHYYAATAAAAHHHH
----AAATAAAW----
```

Original motif

Consensus sequence: HDHYYAATAAAAHHHH

Reverse complement motif

Consensus sequence: HDHHTTTTATTKKHDD

Motif ID:	UP00134
Motif name:	Hoxb13
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	5

Number of overlap: 8
Similarity score: 0.00468315

Alignment:
VDHWTTTTATTGGDKB
----WTTTATTT----

Original motif
Consensus sequence: VRHCCAATAAAAWHHV

Reverse complement motif
Consensus sequence: VDHWTTTTATTGGDKB

Motif ID: UP00217
Motif name: Hoxa10
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: 0.00632827

Alignment:
DHBGYAATAAAATDHW
----AAATAAAW----

Original motif

Reverse complement motif

Consensus sequence: DHBGYAATAAAATDHW

Consensus sequence: WDDATTTTATTMCBHD

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:	6
Number of overlap:	8
Similarity score:	0.00650679

Alignment:

```
HDDDATTTTATTKVRDB
-----WTTTATTT----
```

Original motif

Consensus sequence: VDKVYAATAAAATDDDH

Reverse complement motif

Consensus sequence: HDDDATTTTATTKVRDB

Dataset #: 2 **Motif ID: 53** **Motif name: Motif 53**

Original motif

Consensus sequence: CAGATCCC

Reverse complement motif

Consensus sequence: GGGATCTG

Best Matches for Motif ID 53 (Highest to Lowest)

Motif ID:	UP00232
Motif name:	Dobox4
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:	8
Similarity score:	0

Alignment:

```
HWHWTAGATACCCYWTD
----CAGATCCC-----
```

Original motif

Consensus sequence: HWHWTAGATACCCYWTD

Reverse complement motif

Consensus sequence: DAWKGGGTATCTAWHWH

Motif ID:	UP00033
Motif name:	Zfp410_primary
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:	8
Similarity score:	0.0114177

Alignment:

```
DVDDATGGGATGKMDDV
------GGGATCTG---
```

Original motif

Consensus sequence: DVDDATGGGATGKMDDV

Reverse complement motif

Consensus sequence: BDDYYCATCCCATDDBD

Motif ID:	UP00019

Motif name:	Zbtb12_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:	8
Similarity score:	0.0161888

Alignment:

```
BDHRBGTTCTAGATCVB
---GGGATCTG------
```

Original motif

Consensus sequence: BDHRBGTTCTAGATCVB

Reverse complement motif

Consensus sequence: BBGATCTAGAACBKHDB

Motif ID:	UP00265
Motif name:	Pitx3
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: 0.0173992

Alignment:
VGGGGGATTAGCDDBC
---GGGATCTG-----

Original motif
Consensus sequence: VGGGGGATTAGCDDBC

Reverse complement motif
Consensus sequence: GBHDGCTAATCCCCCB

Motif ID:	UP00024
Motif name:	Glis2_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:	8
Similarity score:	0.0190616

Alignment:
HHHVGACCCCCCVBRD
--CAGATCCC------

Original motif
Consensus sequence: HHHVGACCCCCCVBRD

Reverse complement motif
Consensus sequence: HKBBGGGGGGTCVHHH

Dataset #: 2 **Motif ID: 54** **Motif name: Motif 54**

Original motif

Consensus sequence: ATTYY

Reverse complement motif

Consensus sequence: MKAAT

Best Matches for Motif ID 54 (Highest to Lowest)

Motif ID:	UP00253
Motif name:	Rax
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

Alignment:

DBSBKMTAATTAKBGSW
-----MKAAT-------

Original motif
Consensus sequence: WSCVYTAATTARYBSVH

Reverse complement motif
Consensus sequence: DBSBKMTAATTAKBGSW

Motif ID:	UP00163
Motif name:	En2
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:	0.00258272

Alignment:
HHVBAMTAATTAKBDCW
-----MKAAT-------

Original motif
Consensus sequence: WGHVYTAATTARTBVHH

Reverse complement motif
Consensus sequence: HHVBAMTAATTAKBDCW

Motif ID:	UP00178
Motif name:	Og2x
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:	0.00347324

Alignment:

```
BHDHBMKAATTMKVVCG
-----MKAAT-------
```

Original motif

Consensus sequence: CGVVYYAATTRRBHDHB

Reverse complement motif

Consensus sequence: BHDHBMKAATTMKVVCG

Motif ID:	UP00108

Motif name:	Alx3
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:	0.00511465

Alignment:

```
VHVAKMTAATTAKTHBW
-----MKAAT-------
```

Original motif

Consensus sequence: WVHAYTAATTARYTVHV

Reverse complement motif

Consensus sequence: VHVAKMTAATTAKTHBW

Motif ID:	UP00139
Motif name:	Nkx1-2
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:	5

Similarity score: 0.0054602

Alignment:
WGHAMTAATTAKKVBDH
----MKAAT--------

Original motif
Consensus sequence: DDBVRYTAATTARTDCW

Reverse complement motif
Consensus sequence: WGHAMTAATTAKKVBDH

Dataset #: 2 Motif ID: 55 Motif name: Motif 55

Original motif
Consensus sequence: GCTCACAA

Reverse complement motif
Consensus sequence: TTGTGAGC

Best Matches for Motif ID 55 (Highest to Lowest)

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:	Backward
Position number:	5
Number of overlap:	8
Similarity score:	0

Alignment:

```
BHHHTTGTGTGCKHVD
----TTGTGAGC----
```

Original motif

Consensus sequence: HVHRGCACACAAHHHV

Reverse complement motif

Consensus sequence: BHHHTTGTGTGCKHVD

Motif ID:	UP00042
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:	5
Number of overlap:	8
Similarity score:	0.0097578

Alignment:

DVMVGCACACACKCVH
----GCTCACAA----

Original motif

Consensus sequence: DVMVGCACACACKCVH

Reverse complement motif

Consensus sequence: HBGYGTGTGTGCVRVD

Motif ID:	UP00095
Motif name:	Zfp691_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	8
Similarity score:	0.0133529

Alignment:
BDHVCAGTGCTCMBHDD
--------GCTCACAA-

Original motif

Consensus sequence: BDHVCAGTGCTCMBHDD

Reverse complement motif

Consensus sequence: DDHBYGAGCACTGBHHB

Motif ID:	UP00258
Motif name:	Tgif2
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:	8
Similarity score:	0.0172769

Alignment:

```
VBWTTGACAGCTVBTT
---TTGTGAGC-----
```

Original motif

Consensus sequence: AABBAGCTGTCAAWVV

Reverse complement motif

Consensus sequence: VBWTTGACAGCTVBTT

Motif ID:	UP00045

Motif name:	Mafb_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:	8
Similarity score:	0.0197606

Alignment:

```
HAAWDTGCTGACDWARH
------GCTCACAA---
```

Original motif

Consensus sequence: HAAWDTGCTGACDWARH

Reverse complement motif

Consensus sequence: DMTWDGTCAGCADWTTH

Dataset #: 2 Motif ID: 56 Motif name: Motif 56

Original motif

Consensus sequence: CCACATGG

Reverse complement motif

Consensus sequence: CCATGTGG

Best Matches for Motif ID 56 (Highest to Lowest)

Motif ID:	UP00010
Motif name:	Tcfap2b_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

Alignment:

```
HTGCCMTVKGGCMD
---CCATGTGG---
```

Original motif

Consensus sequence: DYGCCYBARGGCAH

Reverse complement motif

Consensus sequence: HTGCCMTVKGGCMD

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:	0.000569341

Alignment:

```
YDYBDHTMCACGTGGADDBMDGT
-------CCACATGG--------
```

Original motif

Consensus sequence: YDYBDHTMCACGTGGADDBMDGT

Reverse complement motif

Consensus sequence: ACHRBHDTCCACGTGYAHHBMHM

Motif ID:	UP00060
Motif name:	Max_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: 0.0020225

Alignment:
DDASCACGTGBTBVDD
---CCACATGG-----

Original motif
Consensus sequence: DDASCACGTGBTBVDD

Reverse complement motif
Consensus sequence: HHVBABCACGTGSTHD

Motif ID: UP00046
Motif name: Tcfe2a_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: 0.00356885

Alignment:
HVDDVCAGATGKYHBBV
----CCACATGG-----

Original motif

Reverse complement motif

Consensus sequence: HVDDVCAGATGKYHBBV

Consensus sequence: VBBDMYCATCTGVHHBH

Motif ID:	UP00539
Motif name:	Gli2_v015681_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	11
Number of overlap:	8
Similarity score:	0.00437787

Alignment:

```
HTBVVVDGGACCACCCRGRDBG
----------CCACATGG----
```

Original motif

Consensus sequence: HTBVVVDGGACCACCCRGRDBG

Reverse complement motif

Consensus sequence: CBDMCMGGGTGGTCCHVBVBAH

Dataset #: 2 **Motif ID: 57** **Motif name: Motif 57**

Original motif

Consensus sequence: ACACACAY

Reverse complement motif

Consensus sequence: KTGTGTGT

Best Matches for Motif ID 57 (Highest to Lowest)

Motif ID:	UP00042
Motif name:	Gm397_second
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:	8
Similarity score:	0

Alignment:

```
HBGYGTGTGTGCVRVD
--KTGTGTGT------
```

Original motif

Consensus sequence: DVMVGCACACACKCVH

Reverse complement motif

Consensus sequence: HBGYGTGTGTGCVRVD

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:	Backward
Position number:	3
Number of overlap:	8
Similarity score:	0.0175328

Alignment:

```
BHHHTTGTGTGCKHVD
------KTGTGTGT--
```

Original motif

Consensus sequence: HVHRGCACACAAHHHV

Reverse complement motif

Consensus sequence: BHHHTTGTGTGCKHVD

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:	8
Similarity score:	0.0353784

Alignment:

```
HDHRTAAACAAAHDDD
-----ACACACAY---
```

Original motif

Consensus sequence: HDHRTAAACAAAHDDD

Reverse complement motif

Consensus sequence: DDDHTTTGTTTAMHDH

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:	3
Number of overlap:	8

Similarity score: 0.0359654

Alignment:
DHVDTGTGCACAYAHDH
-------ACACACAY--

Original motif
Consensus sequence: DHVDTGTGCACAYAHDH

Reverse complement motif
Consensus sequence: HDHTMTGTGCACADVHD

Motif ID: UP00039
Motif name: Foxj3_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: 8
Similarity score: 0.0382549

Alignment:
DVVTTTGTTTACDTHDH
--KTGTGTGT-------

Original motif
Consensus sequence: HDHADGTAAACAAAVVH

Reverse complement motif
Consensus sequence: DVVTTTGTTTACDTHDH

Dataset #: 2 **Motif ID: 58** **Motif name: Motif 58**

Original motif

Consensus sequence: TACATGCA

Reverse complement motif

Consensus sequence: TGCATGTA

Best Matches for Motif ID 58 (Highest to Lowest)

Motif ID:	UP00150
Motif name:	Irx6
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

Alignment:

AHWDBTACATGTADHTH
-----TACATGCA----

Original motif

Consensus sequence: HAHDTACATGTAVDWHT

Reverse complement motif

Consensus sequence: AHWDBTACATGTADHTH

Motif ID:	UP00236
Motif name:	Irx2
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:	0.000109499

Alignment:
WVWDDTACATGTADDDW
-----TACATGCA----

Original motif

Consensus sequence: WDDDTACATGTADDWBW

Reverse complement motif

Consensus sequence: WVWDDTACATGTADDDW

Motif ID:	UP00223
Motif name:	Irx3_2226.1
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:	0.000755361

Alignment:

```
DHDWBTACATGTAHDDD
-----TACATGCA----
```

Original motif

Consensus sequence: DDDHTACATGTAVWDHD

Reverse complement motif

Consensus sequence: DHDWBTACATGTAHDDD

Motif ID: UP00223

Motif name:	Irx3_0920.1
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:	0.00254146

Alignment:

```
DDDDTACATGTAVWWHD
----TGCATGTA-----
```

Original motif

Consensus sequence: DDDDTACATGTAVWWHD

Reverse complement motif

Consensus sequence: DDWWBTACATGTADDDD

Motif ID:	UP00250
Motif name:	Irx5
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: 0.0106901

Alignment:
WVTDHWACATGTWHDDD
-----TACATGCA----

Original motif
Consensus sequence: DDDHWACATGTWHDABW

Reverse complement motif
Consensus sequence: WVTDHWACATGTWHDDD

Dataset #: 2 Motif ID: 59 Motif name: Motif 59

Original motif
Consensus sequence: CCCCRCCC

Reverse complement motif
Consensus sequence: GGGKGGGG

Best Matches for Motif ID 59 (Highest to Lowest)

Motif ID:	UP00093
Motif name:	Klf7_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif

Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	5
Number of overlap:	8
Similarity score:	0

Alignment:

```
HBDRCCMCGCCCHHHD
----CCCCRCCC----
```

Original motif

Consensus sequence: HBDRCCMCGCCCHHHD

Reverse complement motif

Consensus sequence: DHHDGGGCGRGGKHBH

Motif ID:	UP00021
Motif name:	Zfp281_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	8
Similarity score:	0.0189858

Alignment:

GKRGGGGGGGGGGBD
-----GGGKGGGG--

Original motif
Consensus sequence: DBCCCCCCCCCCMYC

Reverse complement motif
Consensus sequence: GKRGGGGGGGGGGBD

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:	Backward
Position number:	4
Number of overlap:	8
Similarity score:	0.0254924

Alignment:
BHHDYGGGGGGGGBVD
-----GGGKGGGG---

Original motif
Consensus sequence: HVBCCCCCCCCMHHHB

Reverse complement motif
Consensus sequence: BHHDYGGGGGGGGBVD

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:	8
Number of overlap:	8
Similarity score:	0.0331118

Alignment:

```
MHHHWHYTMCCHCCCACVAABVH
-------CCCCRCCC--------
```

Original motif

Consensus sequence: MHHHWHYTMCCHCCCACVAABVH

Reverse complement motif

Consensus sequence: DVVTTVGTGGGHGGYAMHWHHHY

Motif ID:	UP00007

Motif name:	Egr1_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:	8
Similarity score:	0.0351247

Alignment:

```
VHTGCGGGGGCGGH
-----GGGKGGGG-
```

Original motif

Consensus sequence: HCCGCCCCCGCAHB

Reverse complement motif

Consensus sequence: VHTGCGGGGGCGGH

Dataset #: 2 Motif ID: 60 Motif name: Motif 60

Original motif

Consensus sequence: CTGGAR

Reverse complement motif

Consensus sequence: MTCCAG

Best Matches for Motif ID 60 (Highest to Lowest)

Motif ID:	UP00031
Motif name:	Zbtb3_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	5
Number of overlap:	6
Similarity score:	0

Alignment:

```
BBBAVTGCAGTGBBVDD
----MTCCAG-------
```

Original motif

Consensus sequence: DDBBBCACTGCABTBBB

Reverse complement motif

Consensus sequence: BBBAVTGCAGTGBBVDD

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:	4
Number of overlap:	6
Similarity score:	0.00563465

Alignment:

```
HDHDDCCAGACABBHVH
---MTCCAG--------
```

Original motif

Consensus sequence: HDHDDCCAGACABBHVH

Reverse complement motif

Consensus sequence: HVHBVTGTCTGGDDHDD

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: 0.00856965

Alignment:
DHDACCGGAAKTBBVV
----CTGGAR------

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: Backward
Position number: 7
Number of overlap: 6
Similarity score: 0.00868366

Alignment:
BDDACCGGAAKTVBVB
----CTGGAR------

Original motif

Reverse complement motif

Consensus sequence: VBBVAYTTCCGGTDDB

Consensus sequence: BDDACCGGAAKTVBVB

Motif ID:	UP00231
Motif name:	Nkx2-2
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:	0.0091158

Alignment:

```
HDVRCCACTTGARADBD
-------CTGGAR----
```

Original motif

Consensus sequence: HDVRCCACTTGARADBD

Reverse complement motif

Consensus sequence: DVDTKTCAAGTGGKBDH

Dataset #: 2 **Motif ID: 61** **Motif name: Motif 61**

Original motif

Consensus sequence: AGATGGY

Reverse complement motif

Consensus sequence: KCCATCT

Best Matches for Motif ID 61 (Highest to Lowest)

Motif ID:	UP00046
Motif name:	Tcfe2a_secondary
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:	7
Similarity score:	0

Alignment:

```
HVDDVCAGATGKYHBBV
------AGATGGY----
```

Original motif

Consensus sequence: HVDDVCAGATGKYHBBV

Reverse complement motif

Consensus sequence: VBBDMYCATCTGVHHBH

Motif ID:	UP00036
Motif name:	Myf6_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:	0.0380154

Alignment:

```
BDKVCABCTGTTBDBV
--KCCATCT-------
```

Original motif

Consensus sequence: VVDBAACAGBTGBYHB

Reverse complement motif

Consensus sequence: BDKVCABCTGTTBDBV

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:	Forward
Position number:	7
Number of overlap:	7
Similarity score:	0.0385991

Alignment:

```
BHCGGCAGTTGGBBB
------AGATGGY--
```

Original motif

Consensus sequence: BBVCCAACTGCCGHB

Reverse complement motif

Consensus sequence: BHCGGCAGTTGGBBB

Motif ID:	UP00033
Motif name:	Zfp410_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:	7

Similarity score: 0.0422018

Alignment:
BDDYYCATCCCATDDBD
---KCCATCT-------

Original motif
Consensus sequence: DVDDATGGGATGKMDDV

Reverse complement motif
Consensus sequence: BDDYYCATCCCATDDBD

Motif ID:	UP00092
Motif name:	Myb_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:	7
Similarity score:	0.0463999

Alignment:
DBVKGGCAGTTGGTHB
-------AGATGGY--

Original motif
Consensus sequence: BDACCAACTGCCRBBH

Reverse complement motif
Consensus sequence: DBVKGGCAGTTGGTHB

Dataset #: 2 **Motif ID: 62** **Motif name: Motif 62**

Original motif

Consensus sequence: CGCCVCC

Reverse complement motif

Consensus sequence: GGVGGCG

Best Matches for Motif ID 62 (Highest to Lowest)

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:	Backward
Position number:	6
Number of overlap:	7
Similarity score:	0

Alignment:

BVVHAGGGGGCGRDHHB
-----GGVGGCG-----

Original motif

Consensus sequence: BDHHMCGCCCCCTHVBB

Reverse complement motif

Consensus sequence: BVVHAGGGGGCGRDHHB

Motif ID:	UP00007
Motif name:	Egr1_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:	7
Similarity score:	0.0105671

Alignment:
VHTGCGGGGGCGGH
-----GGVGGCG--

Original motif

Consensus sequence: HCCGCCCCCGCAHB

Reverse complement motif

Consensus sequence: VHTGCGGGGGCGGH

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:	6
Number of overlap:	7
Similarity score:	0.0302678

Alignment:

```
HBDRCCMCGCCCHHHD
----CGCCVCC-----
```

Original motif

Consensus sequence: HBDRCCMCGCCCHHHD

Reverse complement motif

Consensus sequence: DHHDGGGCGRGGKHBH

Motif ID:	UP00400

Motif name:	Zif268
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:	7
Similarity score:	0.0347726

Alignment:

```
BADHBDHCGCCCMCGCAHHDBBV
-------CGCCVCC---------
```

Original motif

Consensus sequence: BADHBDHCGCCCMCGCAHHDBBV

Reverse complement motif

Consensus sequence: VVVDHHTGCGYGGGCGDHVHHTB

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:	Forward
Position number:	8
Number of overlap:	7

Similarity score: 0.0384581

Alignment:
DHHBCCCCGCCAHHBHB
-------CGCCVCC---

Original motif
Consensus sequence: DHHBCCCCGCCAHHBHB

Reverse complement motif
Consensus sequence: BHBHDTGGCGGGGBDHD

Dataset #: 2 Motif ID: 63 Motif name: Motif 63

Original motif
Consensus sequence: AGAGGGWG

Reverse complement motif
Consensus sequence: CWCCCTCT

Best Matches for Motif ID 63 (Highest to Lowest)

Motif ID:	UP00002
Motif name:	Sp4_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif

Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	6
Number of overlap:	8
Similarity score:	0

Alignment:

```
BVVHAGGGGGCGRDHHB
----AGAGGGWG-----
```

Original motif

Consensus sequence: BDHHMCGCCCCCTHVBB

Reverse complement motif

Consensus sequence: BVVHAGGGGGCGRDHHB

Motif ID:	UP00538
Motif name:	Gli1_v015681_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	11
Number of overlap:	8
Similarity score:	0.00709886

Alignment:

DVVTTVGTGGGHGGYAMHWHHHY
-----AGAGGGWG----------

Original motif

Consensus sequence: MHHHWHYTMCCHCCCACVAABVH

Reverse complement motif

Consensus sequence: DVVTTVGTGGGHGGYAMHWHHHY

Motif ID:	UP00540
Motif name:	Gli3_v015681_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	12
Number of overlap:	8
Similarity score:	0.0107485

Alignment:
YBVDMGTGGGTGGTCKVVBVBBT
----AGAGGGWG-----------

Original motif

Consensus sequence: ABBBBVVRGACCACCCACRDBBM

Reverse complement motif

Consensus sequence: YBVDMGTGGGTGGTCKVVBVBBT

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:	3
Number of overlap:	8
Similarity score:	0.0126141

Alignment:

```
VHTGCGGGGGCGGH
----AGAGGGWG--
```

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:	Reverse Complement
Direction:	Backward
Position number:	6
Number of overlap:	8
Similarity score:	0.0180504

Alignment:

```
GKRGGGGGGGGGGBD
--AGAGGGWG-----
```

Original motif

Consensus sequence: DBCCCCCCCCCCMYC

Reverse complement motif

Consensus sequence: GKRGGGGGGGGGGBD

Dataset #: 2 Motif ID: 64 Motif name: Motif 64

Original motif

Consensus sequence: CATATRCA

Reverse complement motif

Consensus sequence: TGMATATG

Best Matches for Motif ID 64 (Highest to Lowest)

Motif ID:	UP00211
Motif name:	Pou3f3
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

Alignment:

```
HADDTATGCATAATDDA
------TGMATATG---
```

Original motif

Consensus sequence: HADDTATGCATAATDDA

Reverse complement motif

Consensus sequence: TDDATTATGCATADDTH

Motif ID:	UP00179
Motif name:	Pou2f3
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:	0.00980027

Alignment:

```
BHDTATGCAAATBHDV
-----TGMATATG---
```

Original motif

Consensus sequence: BHDTATGCAAATBHDV

Reverse complement motif

Consensus sequence: BHHVATTTGCATAHHV

Motif ID:	UP00191
Motif name:	Pou2f2
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: 0.011527

Alignment:
BHDTATGCAAATDHDV
-----TGMATATG---

Original motif
Consensus sequence: BHDTATGCAAATDHDV

Reverse complement motif
Consensus sequence: BHHDATTTGCATAHHV

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: 5
Number of overlap: 8
Similarity score: 0.0243027

Alignment:
HDYTTGCACACGDHBH
----TGMATATG----

Original motif

Reverse complement motif

Consensus sequence: DBDHCGTGTGCAAMDH

Consensus sequence: HDYTTGCACACGDHBH

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:	Forward
Position number:	4
Number of overlap:	8
Similarity score:	0.0250687

Alignment:

```
HHRTATGTGCACATHHD
---CATATRCA------
```

Original motif

Consensus sequence: HHDATGTGCACATAMDH

Reverse complement motif

Consensus sequence: HHRTATGTGCACATHHD

Dataset #: 2 **Motif ID: 65** **Motif name: Motif 65**

Original motif

Consensus sequence: ARAACA

Reverse complement motif

Consensus sequence: TGTTMT

Best Matches for Motif ID 65 (Highest to Lowest)

Motif ID:	UP00101
Motif name:	Sox12_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:	6
Similarity score:	0

Alignment:

```
THATTGTTVTHAWH
----TGTTMT----
```

Original motif

Consensus sequence: THATTGTTVTHAWH

Reverse complement motif

Consensus sequence: DWTHAVAACAATHA

Motif ID:	UP00030
Motif name:	Sox11_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:	6
Similarity score:	0.000395587

Alignment:

```
HBDDRAACAAAGRABHH
---ARAACA--------
```

Original motif

Consensus sequence: HBDDRAACAAAGRABHH

Reverse complement motif

Consensus sequence: HHBTMCTTTGTTMDDVH

Motif ID:	UP00062

Motif name:	Sox4_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	9
Number of overlap:	6
Similarity score:	0.00357565

Alignment:

```
HHBBMCTTTGTTHDDBH
--------TGTTMT---
```

Original motif

Consensus sequence: HBDDDAACAAAGRVBHH

Reverse complement motif

Consensus sequence: HHBBMCTTTGTTHDDBH

Motif ID:	UP00034
Motif name:	Sox7_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: 0.00753019

Alignment:
WBHHHHHMDATTGTTHDHDVHH
----------TGTTMT-----

Original motif
Consensus sequence: HHBDHDDAACAATDRHHHHHBW

Reverse complement motif
Consensus sequence: WBHHHHHMDATTGTTHDHDVHH

Motif ID: UP00039
Motif name: Foxj3_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: 0.0083324

Alignment:
DVHWDTGTTWTGDTBDH
-----TGTTMT------

Original motif
Consensus sequence: HDBAHCAWAACADWDVD

Reverse complement motif
Consensus sequence: DVHWDTGTTWTGDTBDH

Dataset #: 2 **Motif ID: 66** **Motif name: Motif 66**

Original motif

Consensus sequence: TATAAATR

Reverse complement motif

Consensus sequence: KATTTATA

Best Matches for Motif ID 66 (Highest to Lowest)

Motif ID:	UP00118
Motif name:	Pou4f3
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

Alignment:

HVTTATTAATKADKHC
---TATAAATR-----

Original motif
Consensus sequence: HVTTATTAATKADKHC

Reverse complement motif
Consensus sequence: GHYHTYATTAATAAVH

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:	Backward
Position number:	6
Number of overlap:	8
Similarity score:	0.00672344

Alignment:
DWAATRTAAACAAWVVB
----TATAAATR-----

Original motif
Consensus sequence: DWAATRTAAACAAWVVB

Reverse complement motif
Consensus sequence: VVVWTTGTTTAMATTWD

Motif ID:	UP00154
Motif name:	Dlx3
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:	8
Similarity score:	0.00785197

Alignment:

```
BHVVDATAATTACMVHH
----TATAAATR-----
```

Original motif

Consensus sequence: BHVVDATAATTACMVHH

Reverse complement motif

Consensus sequence: DHVRGTAATTATHVVDV

Motif ID:	UP00016

Motif name:	Sry_primary
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:	0.00840021

Alignment:

```
VDDDATTATAATHDHV
------TATAAATR--
```

Original motif

Consensus sequence: BHDHATTATAATDDDV

Reverse complement motif

Consensus sequence: VDDDATTATAATHDHV

Motif ID:	UP00110
Motif name:	Dlx4
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: 0.011539

Alignment:
GHVRGTAATTATDVVGV
-----KATTTATA----

Original motif
Consensus sequence: BCVVDATAATTACMVHC

Reverse complement motif
Consensus sequence: GHVRGTAATTATDVVGV

Dataset #: 2 Motif ID: 67 Motif name: Motif 67

Original motif
Consensus sequence: SYGCCCYCTDSTGG

Reverse complement motif
Consensus sequence: CCASHAGKGGGCKS

Best Matches for Motif ID 67 (Highest to Lowest)

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:	1
Number of overlap:	14
Similarity score:	0.036534

Alignment:

```
BHHDYGGGGGGGGBVD
CCASHAGKGGGCKS--
```

Original motif

Consensus sequence: HVBCCCCCCCCMHHHB

Reverse complement motif

Consensus sequence: BHHDYGGGGGGGGBVD

Motif ID:	UP00539
Motif name:	Gli2_v016060_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:	14
Similarity score:	0.0371579

Alignment:

```
RTHBSYCGCCMCMYVCGBTVDH
-----SYGCCCYCTDSTGG---
```

Original motif

Consensus sequence: RTHBSYCGCCMCMYVCGBTVDH

Reverse complement motif

Consensus sequence: HDBABCGBKRGYGGCGMSBHAK

Motif ID:	UP00400
Motif name:	Zif268
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:	14
Similarity score:	0.0410702

Alignment:

```
VVVDHHTGCGYGGGCGDHVHHTB
---CCASHAGKGGGCKS------
```

Original motif

Consensus sequence: BADHBDHCGCCCMCGCAHHDBBV

Reverse complement motif

Consensus sequence: VVVDHHTGCGYGGGCGDHVHHTB

Motif ID:	UP00022
Motif name:	Zfp740_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	14
Similarity score:	0.0411664

Alignment:

```
DDDTWCCCCCCGGDRVH
--SYGCCCYCTDSTGG-
```

Original motif

Consensus sequence: DDDTWCCCCCCGGDRVH

Reverse complement motif

Consensus sequence: HVKDCCGGGGGGWADDD

Motif ID:	UP00007
Motif name:	Egr1_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: 14
Similarity score: 0.0419746

Alignment:
BBHBGAGTGGGAHHDB
CCASHAGKGGGCKS--

Original motif
Consensus sequence: BBHBGAGTGGGAHHDB

Reverse complement motif
Consensus sequence: BHHDTCCCACTCBDBV

Dataset #: 2 Motif ID: 68 Motif name: Motif 68

Original motif
Consensus sequence: WAAWAAAWAWWWAA

Reverse complement motif
Consensus sequence: TTWWWTWTTTWTTW

Best Matches for Motif ID 68 (Highest to Lowest)

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:	Forward
Position number:	4
Number of overlap:	14
Similarity score:	0.0252297

Alignment:

```
HHWAWGTAAAYAAAVDB
---WAAWAAAWAWWWAA
```

Original motif

Consensus sequence: HHWAWGTAAAYAAAVDB

Reverse complement motif

Consensus sequence: BDVTTTKTTTACWTWHH

Motif ID:	UP00061
Motif name:	Foxl1_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:	14
Similarity score:	0.0252358

Alignment:
HDTYTTGTTWTKDDDT
TTWWWTWTTTWTTW--

Original motif
Consensus sequence: ADDDYAWAACAAMAHH

Reverse complement motif
Consensus sequence: HDTYTTGTTWTKDDDT

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:	14
Similarity score:	0.0267996

Alignment:
HDHADGTAAACAAAVVH
---WAAWAAAWAWWWAA

Original motif
Consensus sequence: HDHADGTAAACAAAVVH

Reverse complement motif
Consensus sequence: DVVTTTGTTTACDTHDH

Motif ID:	UP00244
Motif name:	Tlx2
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	14
Similarity score:	0.0275942

Alignment:

```
WWDTTATTAATTHATTV
--TTWWWTWTTTWTTW-
```

Original motif

Consensus sequence: BAATHAATTAATAAHWW

Reverse complement motif

Consensus sequence: WWDTTATTAATTHATTV

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:	2
Number of overlap:	14
Similarity score:	0.0288501

Alignment:

```
HDHRTAAACAAAHDDD
-WAAWAAAWAWWWAA-
```

Original motif

Consensus sequence: HDHRTAAACAAAHDDD

Reverse complement motif

Consensus sequence: DDDHTTTGTTTAMHDH

Dataset #: 2 **Motif ID: 69** **Motif name: Motif 69**

Original motif

Consensus sequence: CCTGGARCTGGAGT

Reverse complement motif

Consensus sequence: ACTCCAGMTCCAGG

Best Matches for Motif ID 69 (Highest to Lowest)

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:	Backward
Position number:	1
Number of overlap:	14
Similarity score:	0.0303891

Alignment:

```
BHHDTCCCACTCBDBV
--ACTCCAGMTCCAGG
```

Original motif

Consensus sequence: BBHBGAGTGGGAHHDB

Reverse complement motif

Consensus sequence: BHHDTCCCACTCBDBV

Motif ID:	UP00079
Motif name:	Esrra_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:	14
Similarity score:	0.031849

Alignment:

```
DHDBCAAGGTCAHVBDH
-ACTCCAGMTCCAGG--
```

Original motif

Consensus sequence: DHDBCAAGGTCAHVBDH

Reverse complement motif

Consensus sequence: HHBVHTGACCTTGVDHD

Motif ID:	UP00527
Motif name:	Foxn4_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	14

Similarity score: 0.0328055

Alignment:
TCDAMVBGACGCMAKDDDVBBD
--------ACTCCAGMTCCAGG

Original motif
Consensus sequence: DBBVDDDRTRGCGTCBBYTHGA

Reverse complement motif
Consensus sequence: TCDAMVBGACGCMAKDDDVBBD

Motif ID:	UP00000
Motif name:	Smad3_primary
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:	14
Similarity score:	0.0343241

Alignment:
HVHBVTGTCTGGDDHDD
-CCTGGARCTGGAGT--

Original motif
Consensus sequence: HDHDDCCAGACABBHVH

Reverse complement motif
Consensus sequence: HVHBVTGTCTGGDDHDD

Motif ID:	UP00076
Motif name:	Rfxdc2_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:	14
Similarity score:	0.0347793

Alignment:

```
HDDVSGTRTCMADGBVB
ACTCCAGMTCCAGG---
```

Original motif

Consensus sequence: BBVCDTRGAKACSVDDH

Reverse complement motif

Consensus sequence: HDDVSGTRTCMADGBVB

Dataset #: 3 Motif ID: 70 Motif name: Ar

Original motif

Consensus sequence: HWDAGHACRHHVTGTHCCHVMV

Reverse complement motif

Consensus sequence: VRVDGGHACAVDDKGTHCTDWH

Best Matches for Motif ID 70 (Highest to Lowest)

Motif ID:	UP00032
Motif name:	Gata3_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:	22
Similarity score:	0.0676991

Alignment:

```
HBHDVBWGATHBTATCRVBHHH
HWDAGHACRHHVTGTHCCHVMV
```

Original motif

Consensus sequence: HBHDVBWGATHBTATCRVBHHH

Reverse complement motif

Consensus sequence: HHHBBMGATAVHATCWVVDHVH

Motif ID:	UP00034
Motif name:	Sox7_secondary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	22
Similarity score:	0.0692146

Alignment:

```
VVYDDDCHCAVACAATTDBVAC
VRVDGGHACAVDDKGTHCTDWH
```

Original motif

Consensus sequence: GTVBDAATTGTVTGHGDDHKVB

Reverse complement motif

Consensus sequence: VVYDDDCHCAVACAATTDBVAC

Motif ID:	UP00050
Motif name:	Bhlhb2_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	22

Similarity score: 0.0695612

Alignment:
DDHBHBSTCACGTGAHBBDHHM
VRVDGGHACAVDDKGTHCTDWH

Original motif
Consensus sequence: RDHDBVDTCACGTGASBHVHDH

Reverse complement motif
Consensus sequence: DDHBHBSTCACGTGAHBBDHHM

Motif ID: UP00050
Motif name: Bhlhb2_secondary
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: 22
Similarity score: 0.0771346

Alignment:
ACHRBHDTCCACGTGYAHHBMHM
-HWDAGHACRHHVTGTHCCHVMV

Original motif
Consensus sequence: YDYBDHTMCACGTGGADDBMDGT

Reverse complement motif
Consensus sequence: ACHRBHDTCCACGTGYAHHBMHM

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: Forward
Position number: 1
Number of overlap: 22
Similarity score: 0.0772045

Alignment:
HDWHMHGACGCGCGTRBVVBHW
VRVDGGHACAVDDKGTHCTDWH

Original motif
Consensus sequence: WHVBVVMACGCGCGTCDYHWDH

Reverse complement motif
Consensus sequence: HDWHMHGACGCGCGTRBVVBHW

Dataset #: 3 Motif ID: 71 Motif name: Arnt

Original motif

Consensus sequence: CACGTG

Reverse complement motif

Consensus sequence: CACGTG

Best Matches for Motif ID 71 (Highest to Lowest)

Motif ID:	UP00050
Motif name:	Bhlhb2_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:	6
Similarity score:	0

Alignment:

```
RDHDBVDTCACGTGASBHVHDH
--------CACGTG--------
```

Original motif

Consensus sequence: RDHDBVDTCACGTGASBHVHDH

Reverse complement motif

Consensus sequence: DDHBHBSTCACGTGAHBBDHHM

Motif ID:	UP00050
Motif name:	Bhlhb2_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:	6
Similarity score:	0.0026425

Alignment:

```
ACHRBHDTCCACGTGYAHHBMHM
---------CACGTG--------
```

Original motif

Consensus sequence: YDYBDHTMCACGTGGADDBMDGT

Reverse complement motif

Consensus sequence: ACHRBHDTCCACGTGYAHHBMHM

Motif ID:	UP00060

Motif name:	Max_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:	6
Similarity score:	0.0044422

Alignment:

```
DDASCACGTGBTBVDD
----CACGTG------
```

Original motif

Consensus sequence: DDASCACGTGBTBVDD

Reverse complement motif

Consensus sequence: HHVBABCACGTGSTHD

Motif ID:	UP00046
Motif name:	Tcfe2a_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: 0.0342153

Alignment:
DHDBHGCACCTGBDDVB
------CACGTG-----

Original motif
Consensus sequence: VBHHVCAGGTGCDVDHD

Reverse complement motif
Consensus sequence: DHDBHGCACCTGBDDVB

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:	Forward
Position number:	9
Number of overlap:	6
Similarity score:	0.0471928

Alignment:
HDYTTGCACACGDHBH
--------CACGTG--

Original motif
Consensus sequence: DBDHCGTGTGCAAMDH

Reverse complement motif
Consensus sequence: HDYTTGCACACGDHBH

Dataset #: 3 **Motif ID: 72** **Motif name: ArntAhr**

Original motif

Consensus sequence: YGCGTG

Reverse complement motif

Consensus sequence: CACGCM

Best Matches for Motif ID 72 (Highest to Lowest)

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

Alignment:

VVVDHHTGCGYGGGCGDHVHHTB
------YGCGTG----------

Original motif

Consensus sequence: BADHBDHCGCCCMCGCAHHDBBV

Reverse complement motif

Consensus sequence: VVVDHHTGCGYGGGCGDHVHHTB

Motif ID:	UP00002
Motif name:	Sp4_secondary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	6
Number of overlap:	6
Similarity score:	0.00183587

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

Original motif

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:	UP00527

Motif name:	Foxn4_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	8
Number of overlap:	6
Similarity score:	0.00526158

Alignment:

```
TCDAMVBGACGCMAKDDDVBBD
-------CACGCM---------
```

Original motif

Consensus sequence: DBBVDDDRTRGCGTCBBYTHGA

Reverse complement motif

Consensus sequence: TCDAMVBGACGCMAKDDDVBBD

Motif ID:	UP00042
Motif name:	Gm397_second
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	8
Number of overlap:	6

Similarity score: 0.00558171

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

Original motif
Consensus sequence: DVMVGCACACACKCVH

Reverse complement motif
Consensus sequence: HBGYGTGTGTGCVRVD

Dataset #: 3 Motif ID: 73 Motif name: CREB1

Original motif
Consensus sequence: TGACGTCA

Reverse complement motif
Consensus sequence: TGACGTCA

Best Matches for Motif ID 73 (Highest to Lowest)

Motif ID:	UP00103
Motif name:	Jundm2_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:	8
Similarity score:	0

Alignment:

```
BBGATGACGTCAYCVH
----TGACGTCA----
```

Original motif

Consensus sequence: BBGATGACGTCAYCVH

Reverse complement motif

Consensus sequence: HVGMTGACGTCATCBB

Motif ID:	UP00020
Motif name:	Atf1_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:	2.53244e-05

Alignment:

DBDRTGACGTCAYHRD
----TGACGTCA----

Original motif
Consensus sequence: DBDRTGACGTCAYHRD

Reverse complement motif
Consensus sequence: DMDMTGACGTCAKHBD

Motif ID:	UP00527
Motif name:	Foxn4_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	9
Number of overlap:	8
Similarity score:	0.029362

Alignment:
TCDAMVBGACGCMAKDDDVBBD
------TGACGTCA--------

Original motif
Consensus sequence: DBBVDDDRTRGCGTCBBYTHGA

Reverse complement motif
Consensus sequence: TCDAMVBGACGCMAKDDDVBBD

Motif ID:	UP00020
Motif name:	Atf1_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:	8
Similarity score:	0.0350871

Alignment:

```
DDTMDTCGTCATDV
---TGACGTCA---
```

Original motif

Consensus sequence: VDATGACGADYADH

Reverse complement motif

Consensus sequence: DDTMDTCGTCATDV

Motif ID:	UP00084

Motif name:	Gmeb1_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:	8
Similarity score:	0.0378098

Alignment:

```
BHBBKKACGTMMVDBVB
----TGACGTCA-----
```

Original motif

Consensus sequence: BHBBKKACGTMMVDBVB

Reverse complement motif

Consensus sequence: BVVDVRYACGTRYVBHB

Dataset #: 3 Motif ID: 74 Motif name: CTCF

Original motif

Consensus sequence: YDRCCASYAGRKGGCRSYV

Reverse complement motif

Consensus sequence: BMSMGCCYMCTKSTGGMHM

Best Matches for Motif ID 74 (Highest to Lowest)

Motif ID:	UP00400
Motif name:	Zif268
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	19
Similarity score:	0.0409369

Alignment:

```
BADHBDHCGCCCMCGCAHHDBBV
----BMSMGCCYMCTKSTGGMHM
```

Original motif

Consensus sequence: BADHBDHCGCCCMCGCAHHDBBV

Reverse complement motif

Consensus sequence: VVVDHHTGCGYGGGCGDHVHHTB

Motif ID:	UP00538
Motif name:	Gli1_v016060_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:	19
Similarity score:	0.0409815

Alignment:

```
HVBDAGCGBGGGTGGCRDBDDDB
-YDRCCASYAGRKGGCRSYV---
```

Original motif

Consensus sequence: HVBDAGCGBGGGTGGCRDBDDDB

Reverse complement motif

Consensus sequence: BDDHVDKGCCACCCVCGCTDBVH

Motif ID:	UP00540
Motif name:	Gli3_v015681_secondary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1

Number of overlap: 19
Similarity score: 0.0431951

Alignment:
VMYDHDGMCCHCCKBGVVAAVH
---BMSMGCCYMCTKSTGGMHM

Original motif
Consensus sequence: DVTTVVCVYGGHGGYCHHDMYB

Reverse complement motif
Consensus sequence: VMYDHDGMCCHCCKBGVVAAVH

Motif ID: UP00539
Motif name: Gli2_v016060_secondary
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: 19
Similarity score: 0.0469794

Alignment:
RTHBSYCGCCMCMYVCGBTVDH
---BMSMGCCYMCTKSTGGMHM

Original motif

Reverse complement motif

Consensus sequence: RTHBSYCGCCMCMYVCGBTVDH

Consensus sequence: HDBABCGBKRGYGGCGMSBHAK

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:	5
Number of overlap:	19
Similarity score:	0.0482204

Alignment:

```
BHCBCBCCGGGTGGTCYHVHDCH
YDRCCASYAGRKGGCRSYV----
```

Original motif

Consensus sequence: BHCBCBCCGGGTGGTCYHVHDCH

Reverse complement motif

Consensus sequence: HGDHVHKGACCACCCGGBGBGDB

Dataset #: 3 **Motif ID: 75** **Motif name: Ddit3Cebpa**

Original motif

Consensus sequence: VDRTGCAATMCC

Reverse complement motif

Consensus sequence: GGRATTGCAKHB

Best Matches for Motif ID 75 (Highest to Lowest)

Motif ID:	UP00031
Motif name:	Zbtb3_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	12
Similarity score:	0.026968

Alignment:

```
BBBAVTGCAGTGBBVDD
--VDRTGCAATMCC---
```

Original motif

Consensus sequence: DDBBBCACTGCABTBBB

Reverse complement motif

Consensus sequence: BBBAVTGCAGTGBBVDD

Motif ID:	UP00035
Motif name:	Hic1_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:	12
Similarity score:	0.0308236

Alignment:

```
DDBHGGTTGGCATVBD
---GGRATTGCAKHB-
```

Original motif

Consensus sequence: DBBATGCCAACCHVHH

Reverse complement motif

Consensus sequence: DDBHGGTTGGCATVBD

Motif ID:	UP00083

Motif name:	Tcf7l2_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:	12
Similarity score:	0.0323758

Alignment:

```
VDVVATCAATCRBBHD
-VDRTGCAATMCC---
```

Original motif

Consensus sequence: VDVVATCAATCRBBHD

Reverse complement motif

Consensus sequence: DHVBKGATTGATVBDV

Motif ID:	UP00016
Motif name:	Sry_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:	12

Similarity score: 0.0357538

Alignment:
HHDHDRAACAATDDVHV
---VDRTGCAATMCC--

Original motif
Consensus sequence: HHDHDRAACAATDDVHV

Reverse complement motif
Consensus sequence: VHVHDATTGTTMHDDDH

Motif ID: UP00067
Motif name: Lef1_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: 12
Similarity score: 0.0387064

Alignment:
VDVVATCAATCAHBHD
-VDRTGCAATMCC---

Original motif
Consensus sequence: VDVVATCAATCAHBHD

Reverse complement motif
Consensus sequence: DHVDTGATTGATVBDV

Dataset #: 3 **Motif ID: 76** **Motif name: E2F1**

Original motif

Consensus sequence: TTTSGCGC

Reverse complement motif

Consensus sequence: GCGCSAAA

Best Matches for Motif ID 76 (Highest to Lowest)

Motif ID:	UP00001
Motif name:	E2F2_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:	8
Similarity score:	0

Alignment:

BBBDTTGGCGCCKWVVD
---TTTSGCGC------

Original motif

Consensus sequence: HVBWYGGCGCCAADVBB

Reverse complement motif

Consensus sequence: BBBDTTGGCGCCKWVVD

Motif ID:	UP00003
Motif name:	E2F3_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:	0.00182028

Alignment:
HBHWYGGCGCCAMDVBB
------GCGCSAAA---

Original motif

Consensus sequence: HBHWYGGCGCCAMDVBB

Reverse complement motif

Consensus sequence: BBBDYTGGCGCCKWDBD

Motif ID:	UP00072
Motif name:	IRC900814_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:	0.0237639

Alignment:

```
DDHTACGACAAAWDDB
----GCGCSAAA----
```

Original motif

Consensus sequence: DDHTACGACAAAWDDB

Reverse complement motif

Consensus sequence: BHDWTTTGTCGTAHDD

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:	3
Number of overlap:	8
Similarity score:	0.0275636

Alignment:

```
WHSGCGCGCCHTDHB
-----GCGCSAAA--
```

Original motif

Consensus sequence: VHDADGGCGCGCSHW

Reverse complement motif

Consensus sequence: WHSGCGCGCCHTDHB

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:	9
Number of overlap:	8

Similarity score: 0.028109

Alignment:
DMMDGMGCGCGCGCHD
--------GCGCSAAA

Original motif
Consensus sequence: DDGCGCGCGCRCHYRD

Reverse complement motif
Consensus sequence: DMMDGMGCGCGCGCHD

Dataset #: 3 Motif ID: 77 Motif name: EBF1

Original motif
Consensus sequence: MCCCMAGGGA

Reverse complement motif
Consensus sequence: TCCCTYGGGY

Best Matches for Motif ID 77 (Highest to Lowest)

Motif ID:	UP00057
Motif name:	Zic2_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:	10
Similarity score:	0.0191678

Alignment:

```
VCCCCCCCGGGGGRB
---MCCCMAGGGA--
```

Original motif

Consensus sequence: BMCCCCCGGGGGGGB

Reverse complement motif

Consensus sequence: VCCCCCCCGGGGGRB

Motif ID:	UP00102
Motif name:	Zic1_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	10
Similarity score:	0.0198894

Alignment:

CCCCCCCGGGGGHB
--MCCCMAGGGA--

Original motif
Consensus sequence: BHCCCCCGGGGGGG

Reverse complement motif
Consensus sequence: CCCCCCCGGGGGHB

Motif ID:	UP00006
Motif name:	Zic3_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:	10
Similarity score:	0.0208394

Alignment:
VCCCCCCCGGGGGRB
---MCCCMAGGGA--

Original motif
Consensus sequence: BMCCCCCGGGGGGGB

Reverse complement motif
Consensus sequence: VCCCCCCCGGGGGRB

Motif ID:	UP00010
Motif name:	Tcfap2b_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:	10
Similarity score:	0.0215181

Alignment:

```
HTGCCMTVKGGCMD
--TCCCTYGGGY--
```

Original motif

Consensus sequence: DYGCCYBARGGCAH

Reverse complement motif

Consensus sequence: HTGCCMTVKGGCMD

Motif ID:	UP00539

Motif name:	Gli2_v015681_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	13
Number of overlap:	10
Similarity score:	0.0271543

Alignment:

```
HTBVVVDGGACCACCCRGRDBG
MCCCMAGGGA------------
```

Original motif

Consensus sequence: HTBVVVDGGACCACCCRGRDBG

Reverse complement motif

Consensus sequence: CBDMCMGGGTGGTCCHVBVBAH

Dataset #: 3 **Motif ID: 78** **Motif name: Egr1**

Original motif

Consensus sequence: TTTSGCGC

Reverse complement motif

Consensus sequence: GCGCSAAA

Best Matches for Motif ID 78 (Highest to Lowest)

Motif ID:	UP00001
Motif name:	E2F2_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:	8
Similarity score:	0

Alignment:

```
BBBDTTGGCGCCKWVVD
---TTTSGCGC------
```

Original motif

Consensus sequence: HVBWYGGCGCCAADVBB

Reverse complement motif

Consensus sequence: BBBDTTGGCGCCKWVVD

Motif ID:	UP00003
Motif name:	E2F3_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:	0.00182028

Alignment:

```
HBHWYGGCGCCAMDVBB
------GCGCSAAA---
```

Original motif

Consensus sequence: HBHWYGGCGCCAMDVBB

Reverse complement motif

Consensus sequence: BBBDYTGGCGCCKWDBD

Motif ID:	UP00072
Motif name:	IRC900814_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: 0.0237639

Alignment:
DDHTACGACAAAWDDB
----GCGCSAAA----

Original motif
Consensus sequence: DDHTACGACAAAWDDB

Reverse complement motif
Consensus sequence: BHDWTTTGTCGTAHDD

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: 3
Number of overlap: 8
Similarity score: 0.0275636

Alignment:
WHSGCGCGCCHTDHB
-----GCGCSAAA--

Original motif

Reverse complement motif

Consensus sequence: VHDADGGCGCGCSHW

Consensus sequence: WHSGCGCGCCHTDHB

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:	9
Number of overlap:	8
Similarity score:	0.028109

Alignment:

```
DMMDGMGCGCGCGCHD
--------GCGCSAAA
```

Original motif

Consensus sequence: DDGCGCGCGCRCHYRD

Reverse complement motif

Consensus sequence: DMMDGMGCGCGCGCHD

Dataset #: 3 **Motif ID: 79** **Motif name: ELK1**

Original motif

Consensus sequence: VDDCCGGAAR

Reverse complement motif

Consensus sequence: MTTCCGGHBV

Best Matches for Motif ID 79 (Highest to Lowest)

Motif ID:	UP00414
Motif name:	Ets1
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:	0.00796762

Alignment:

```
BDDDHACCGGAARTVDD
---VDDCCGGAAR----
```

Original motif

Consensus sequence: BDDDHACCGGAARTVDD

Reverse complement motif

Consensus sequence: DDBAMTTCCGGTDHDHB

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:	Backward
Position number:	3
Number of overlap:	10
Similarity score:	0.0101295

Alignment:

```
DDACTTCCGGBTHBB
---MTTCCGGHBV--
```

Original motif

Consensus sequence: VBDABCCGGAAGTDD

Reverse complement motif

Consensus sequence: DDACTTCCGGBTHBB

Motif ID:	UP00411

Motif name:	Erg
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	6
Number of overlap:	10
Similarity score:	0.0105752

Alignment:

```
BDDACCGGAAKTVBVB
-VDDCCGGAAR-----
```

Original motif

Consensus sequence: VBBVAYTTCCGGTDDB

Reverse complement motif

Consensus sequence: BDDACCGGAAKTVBVB

Motif ID:	UP00404
Motif name:	Elf2
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:	10

Similarity score: 0.010693

Alignment:
BDWDCCGGAAGTHBBD
-VDDCCGGAAR-----

Original motif
Consensus sequence: DBBHACTTCCGGDWDB

Reverse complement motif
Consensus sequence: BDWDCCGGAAGTHBBD

Motif ID: UP00423
Motif name: Gm5454
Species: Mus musculus
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 6
Number of overlap: 10
Similarity score: 0.011366

Alignment:
DVHACCGGAAGTHDDV
-VDDCCGGAAR-----

Original motif
Consensus sequence: VDHHACTTCCGGTHVH

Reverse complement motif
Consensus sequence: DVHACCGGAAGTHDDV

Dataset #: 3 **Motif ID: 80** **Motif name: ELK4**

Original motif

Consensus sequence: ACCGGAAGT

Reverse complement motif

Consensus sequence: ACTTCCGGT

Best Matches for Motif ID 80 (Highest to Lowest)

Motif ID:	UP00013
Motif name:	Gabpa_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:	9
Similarity score:	0

Alignment:

HVHHACCGGAAGTDHHV
----ACCGGAAGT----

Original motif

Consensus sequence: HVHHACCGGAAGTDHHV

Reverse complement motif

Consensus sequence: BHHHACTTCCGGTHHBD

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:	4
Number of overlap:	9
Similarity score:	0.0025276

Alignment:
DDBAMTTCCGGTDHDHB
---ACTTCCGGT-----

Original motif

Consensus sequence: BDDDHACCGGAARTVDD

Reverse complement motif

Consensus sequence: DDBAMTTCCGGTDHDHB

Motif ID:	UP00421
Motif name:	Etv1
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:	9
Similarity score:	0.00356917

Alignment:

```
MVHBACCGGAAGTVDVH
----ACCGGAAGT----
```

Original motif

Consensus sequence: MVHBACCGGAAGTVDVH

Reverse complement motif

Consensus sequence: HBDBACTTCCGGTBHVY

Motif ID:	UP00410

Motif name:	Elk1
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:	9
Similarity score:	0.00371937

Alignment:

```
VVHBACCGGAAGTDBHD
----ACCGGAAGT----
```

Original motif

Consensus sequence: VVHBACCGGAAGTDBHD

Reverse complement motif

Consensus sequence: DHBDACTTCCGGTVHVB

Motif ID:	UP00420
Motif name:	Elk3
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	5
Number of overlap:	9

Similarity score: 0.0045671

Alignment:
DVBBACCGGAAGYDVVV
----ACCGGAAGT----

Original motif
Consensus sequence: DVBBACCGGAAGYDVVV

Reverse complement motif
Consensus sequence: VBVDMCTTCCGGTVBVD

Dataset #: 3 Motif ID: 81 Motif name: ESR1

Original motif
Consensus sequence: VDBHMAGGTCACCCTGACCY

Reverse complement motif
Consensus sequence: MGGTCAGGGTGACCTRDBHV

Best Matches for Motif ID 81 (Highest to Lowest)

Motif ID:	UP00538
Motif name:	Gli1_v016060_secondary
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:	20
Similarity score:	0.0658405

Alignment:

```
BDDHVDKGCCACCCVCGCTDBVH
VDBHMAGGTCACCCTGACCY---
```

Original motif

Consensus sequence: HVBDAGCGBGGGTGGCRDBDDDB

Reverse complement motif

Consensus sequence: BDDHVDKGCCACCCVCGCTDBVH

Motif ID:	UP00098
Motif name:	Rfx3_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	20
Similarity score:	0.0689748

Alignment:

```
VCTBHBVCTTGGWTACVVVVVDB
VDBHMAGGTCACCCTGACCY---
```

Original motif

Consensus sequence: VCTBHBVCTTGGWTACVVVVVDB

Reverse complement motif

Consensus sequence: BDBBVBVGTAWCCAAGVBHBAGB

Motif ID:	UP00539
Motif name:	Gli2_v015681_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:	20
Similarity score:	0.0701247

Alignment:

```
CBDMCMGGGTGGTCCHVBVBAH
MGGTCAGGGTGACCTRDBHV--
```

Original motif

Consensus sequence: HTBVVVDGGACCACCCRGRDBG

Reverse complement motif

Consensus sequence: CBDMCMGGGTGGTCCHVBVBAH

Motif ID:	UP00539
Motif name:	Gli2_v015681_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:	20
Similarity score:	0.0711267

Alignment:

```
HVGVSAGGAGGGTCYHHHHYVH
MGGTCAGGGTGACCTRDBHV--
```

Original motif

Consensus sequence: HVGVSAGGAGGGTCYHHHHYVH

Reverse complement motif

Consensus sequence: DVMHHDHKGACCCTCCTSVCBH

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: 2
Number of overlap: 20
Similarity score: 0.0742427

Alignment:
CVHBSCGGGTGGTCMHVHHCDH
-VDBHMAGGTCACCCTGACCY-

Original motif
Consensus sequence: HDGHHBHRGACCACCCGSVDVG

Reverse complement motif
Consensus sequence: CVHBSCGGGTGGTCMHVHHCDH

Dataset #: 3 Motif ID: 82 Motif name: ESR2

Original motif
Consensus sequence: VHRGGTCABDBTGMCCTB

Reverse complement motif
Consensus sequence: BAGGYCABHBTGACCKHV

Best Matches for Motif ID 82 (Highest to Lowest)

Motif ID: UP00034
Motif name: Sox7_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:	18
Similarity score:	0.0443894

Alignment:

```
GTVBDAATTGTVTGHGDDHKVB
---VHRGGTCABDBTGMCCTB-
```

Original motif

Consensus sequence: GTVBDAATTGTVTGHGDDHKVB

Reverse complement motif

Consensus sequence: VVYDDDCHCAVACAATTDBVAC

Motif ID:	UP00538
Motif name:	Gli1_v016060_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:	18
Similarity score:	0.049219

Alignment:
BDDHVDKGCCACCCVCGCTDBVH
---VHRGGTCABDBTGMCCTB--

Original motif
Consensus sequence: HVBDAGCGBGGGTGGCRDBDDDB

Reverse complement motif
Consensus sequence: BDDHVDKGCCACCCVCGCTDBVH

Motif ID:	UP00050
Motif name:	Bhlhb2_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	18
Similarity score:	0.0509182

Alignment:
DDHBHBSTCACGTGAHBBDHHM
--VHRGGTCABDBTGMCCTB--

Original motif
Consensus sequence: RDHDBVDTCACGTGASBHVHDH

Reverse complement motif
Consensus sequence: DDHBHBSTCACGTGAHBBDHHM

Motif ID:	UP00540
Motif name:	Gli3_v015681_secondary
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:	18
Similarity score:	0.0527075

Alignment:

```
DVTTVVCVYGGHGGYCHHDMYB
-BAGGYCABHBTGACCKHV---
```

Original motif

Consensus sequence: DVTTVVCVYGGHGGYCHHDMYB

Reverse complement motif

Consensus sequence: VMYDHDGMCCHCCKBGVVAAVH

Motif ID:	UP00034

Motif name:	Sox7_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:	18
Similarity score:	0.0541044

Alignment:

```
WBHHHHHMDATTGTTHDHDVHH
-BAGGYCABHBTGACCKHV---
```

Original motif

Consensus sequence: HHBDHDDAACAATDRHHHHHBW

Reverse complement motif

Consensus sequence: WBHHHHHMDATTGTTHDHDVHH

Dataset #: 3 **Motif ID: 83** **Motif name: Esrrb**

Original motif

Consensus sequence: VBBYCAAGGTCA

Reverse complement motif

Consensus sequence: TGACCTTGMBBB

Best Matches for Motif ID 83 (Highest to Lowest)

Motif ID:	UP00079
Motif name:	Esrra_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:	12
Similarity score:	0

Alignment:

```
HHBVHTGACCTTGVDHD
-----TGACCTTGMBBB
```

Original motif

Consensus sequence: DHDBCAAGGTCAHVBDH

Reverse complement motif

Consensus sequence: HHBVHTGACCTTGVDHD

Motif ID:	UP00009
Motif name:	Nr2f2_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:	12
Similarity score:	0.0205471

Alignment:

```
DHBHAAAGGTCAHVHB
VBBYCAAGGTCA----
```

Original motif

Consensus sequence: DHBHAAAGGTCAHVHB

Reverse complement motif

Consensus sequence: BHVDTGACCTTTDVDD

Motif ID:	UP00048
Motif name:	Rara
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: 0.0214372

Alignment:
DHBHAAAGGTCACVHD
VBBYCAAGGTCA----

Original motif
Consensus sequence: DHBHAAAGGTCACVHD

Reverse complement motif
Consensus sequence: HHVGTGACCTTTDVDD

Motif ID:	UP00009
Motif name:	Nr2f2_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:	12
Similarity score:	0.0430759

Alignment:
HVBVTGACCCSGBVBV
----TGACCTTGMBBB

Original motif
Consensus sequence: VBVBCSGGGTCAVBBH

Reverse complement motif
Consensus sequence: HVBVTGACCCSGBVBV

Motif ID:	UP00066
Motif name:	Hnf4a_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:	12
Similarity score:	0.0451776

Alignment:

```
BDBVMGGGGTCAABHDV
VBBYCAAGGTCA-----
```

Original motif

Consensus sequence: BDBVMGGGGTCAABHDV

Reverse complement motif

Consensus sequence: BHHVTTGACCCCYVVDB

Dataset #: 3 **Motif ID: 84** **Motif name: GABPA**

Original motif

Consensus sequence: CCGGAAGTGVV

Reverse complement motif

Consensus sequence: VVCACTTCCGG

Best Matches for Motif ID 84 (Highest to Lowest)

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:	2
Number of overlap:	11
Similarity score:	0

Alignment:

```
BHHHACTTCCGGTHHBD
-VVCACTTCCGG-----
```

Original motif

Consensus sequence: HVHHACCGGAAGTDHHV

Reverse complement motif

Consensus sequence: BHHHACTTCCGGTHHBD

Motif ID:	UP00410
Motif name:	Elk1
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:	11
Similarity score:	0.000136484

Alignment:

```
VVHBACCGGAAGTDBHD
-----CCGGAAGTGVV-
```

Original motif

Consensus sequence: VVHBACCGGAAGTDBHD

Reverse complement motif

Consensus sequence: DHBDACTTCCGGTVHVB

Motif ID:	UP00420

Motif name:	Elk3
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:	11
Similarity score:	0.000219706

Alignment:

```
DVBBACCGGAAGYDVVV
-----CCGGAAGTGVV-
```

Original motif

Consensus sequence: DVBBACCGGAAGYDVVV

Reverse complement motif

Consensus sequence: VBVDMCTTCCGGTVBVD

Motif ID:	UP00421
Motif name:	Etv1
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	11

Similarity score: 0.000932023

Alignment:
MVHBACCGGAAGTVDVH
-----CCGGAAGTGVV-

Original motif
Consensus sequence: MVHBACCGGAAGTVDVH

Reverse complement motif
Consensus sequence: HBDBACTTCCGGTBHVY

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: 2
Number of overlap: 11
Similarity score: 0.00527483

Alignment:
DBBHACTTCCGGDWDB
-VVCACTTCCGG----

Original motif
Consensus sequence: DBBHACTTCCGGDWDB

Reverse complement motif
Consensus sequence: BDWDCCGGAAGTHBBD

Dataset #: 3 **Motif ID: 85** **Motif name: Hand1Tcfe2a**

Original motif

Consensus sequence: BRTCTGGMWT

Reverse complement motif

Consensus sequence: AWRCCAGAMB

Best Matches for Motif ID 85 (Highest to Lowest)

Motif ID:	UP00000
Motif name:	Smad3_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	10
Similarity score:	0

Alignment:

HVHBVTGTCTGGDDHDD
-----BRTCTGGMWT--

Original motif

Consensus sequence: HDHDDCCAGACABBHVH

Reverse complement motif

Consensus sequence: HVHBVTGTCTGGDDHDD

Motif ID:	UP00404
Motif name:	Elf2
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:	10
Similarity score:	0.0172295

Alignment:
BDWDCCGGAAGTHBBD
-AWRCCAGAMB-----

Original motif

Consensus sequence: DBBHACTTCCGGDWDB

Reverse complement motif

Consensus sequence: BDWDCCGGAAGTHBBD

Motif ID:	UP00046
Motif name:	Tcfe2a_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:	10
Similarity score:	0.0178635

Alignment:

```
VBBDMYCATCTGVHHBH
------BRTCTGGMWT-
```

Original motif

Consensus sequence: HVDDVCAGATGKYHBBV

Reverse complement motif

Consensus sequence: VBBDMYCATCTGVHHBH

Motif ID:	UP00040

Motif name:	Irf5_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:	10
Similarity score:	0.022871

Alignment:

```
VBHAKTCTCGHTHHV
---BRTCTGGMWT--
```

Original motif

Consensus sequence: BHDAHCGAGARTHBV

Reverse complement motif

Consensus sequence: VBHAKTCTCGHTHHV

Motif ID:	UP00038
Motif name:	Spdef_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: 0.0241958

Alignment:
VHRCATCCGGATHHBB
---BRTCTGGMWT---

Original motif
Consensus sequence: VHRCATCCGGATHHBB

Reverse complement motif
Consensus sequence: VVHHATCCGGATGKHV

Dataset #: 3 Motif ID: 86 Motif name: HIF1AARNT

Original motif
Consensus sequence: VBACGTGV

Reverse complement motif
Consensus sequence: VCACGTBV

Best Matches for Motif ID 86 (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:	Forward
Position number:	8
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:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	4
Number of overlap:	8
Similarity score:	0.000574345

Alignment:

DDASCACGTGBTBVDD
---VBACGTGV-----

Original motif

Consensus sequence: DDASCACGTGBTBVDD

Reverse complement motif

Consensus sequence: HHVBABCACGTGSTHD

Motif ID:	UP00050
Motif name:	Bhlhb2_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	9
Number of overlap:	8
Similarity score:	0.00642455

Alignment:
YDYBDHTMCACGTGGADDBMDGT
-------VBACGTGV--------

Original motif

Consensus sequence: YDYBDHTMCACGTGGADDBMDGT

Reverse complement motif

Consensus sequence: ACHRBHDTCCACGTGYAHHBMHM

Motif ID:	UP00084
Motif name:	Gmeb1_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	5
Number of overlap:	8
Similarity score:	0.0131171

Alignment:

```
BVVDVRYACGTRYVBHB
-----VBACGTGV----
```

Original motif

Consensus sequence: BHBBKKACGTMMVDBVB

Reverse complement motif

Consensus sequence: BVVDVRYACGTRYVBHB

Motif ID:	UP00050

Motif name:	Bhlhb2_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	8
Number of overlap:	8
Similarity score:	0.014006

Alignment:

```
RDHDBVDTCACGTGASBHVHDH
-------VCACGTBV-------
```

Original motif

Consensus sequence: RDHDBVDTCACGTGASBHVHDH

Reverse complement motif

Consensus sequence: DDHBHBSTCACGTGAHBBDHHM

Dataset #: 3 Motif ID: 87 Motif name: HNF4A

Original motif

Consensus sequence: RGGBCAAAGKYCA

Reverse complement motif

Consensus sequence: TGMYCTTTGBCCK

Best Matches for Motif ID 87 (Highest to Lowest)

Motif ID:	UP00058
Motif name:	Tcf3_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	13
Similarity score:	0.0357776

Alignment:

```
HHHASATCAAAGVRHHH
---RGGBCAAAGKYCA-
```

Original motif

Consensus sequence: HHHASATCAAAGVRHHH

Reverse complement motif

Consensus sequence: HHHKVCTTTGATSTHHH

Motif ID:	UP00054
Motif name:	Tcf7_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	13
Similarity score:	0.0357792

Alignment:

```
BHHASATCAAAGGAHHH
---RGGBCAAAGKYCA-
```

Original motif

Consensus sequence: BHHASATCAAAGGAHHH

Reverse complement motif

Consensus sequence: HHHTCCTTTGATSTHHV

Motif ID:	UP00067
Motif name:	Lef1_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: 13
Similarity score: 0.0359011

Alignment:
VDDAGATCAAAGGKDDD
---RGGBCAAAGKYCA-

Original motif
Consensus sequence: DDDYCCTTTGATCTDDV

Reverse complement motif
Consensus sequence: VDDAGATCAAAGGKDDD

Motif ID: UP00083
Motif name: Tcf7l2_primary
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: 13
Similarity score: 0.0360786

Alignment:
BDDASATCAAAGGMDDD
---RGGBCAAAGKYCA-

Original motif

Reverse complement motif

Consensus sequence: DDDYCCTTTGATSTDDV

Consensus sequence: BDDASATCAAAGGMDDD

Motif ID:	UP00046
Motif name:	Tcfe2a_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:	13
Similarity score:	0.0405764

Alignment:

```
HVDDVCAGATGKYHBBV
-RGGBCAAAGKYCA---
```

Original motif

Consensus sequence: HVDDVCAGATGKYHBBV

Reverse complement motif

Consensus sequence: VBBDMYCATCTGVHHBH

Dataset #: 3 **Motif ID: 88** **Motif name: INSM1**

Original motif

Consensus sequence: TGYCAGGGGGCR

Reverse complement motif

Consensus sequence: MGCCCCCTGMCA

Best Matches for Motif ID 88 (Highest to Lowest)

Motif ID:	UP00022
Motif name:	Zfp740_secondary
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:	0.00085101

Alignment:

```
HVKDCCGGGGGGWADDD
--TGYCAGGGGGCR---
```

Original motif

Consensus sequence: DDDTWCCCCCCGGDRVH

Reverse complement motif

Consensus sequence: HVKDCCGGGGGGWADDD

Motif ID:	UP00002
Motif name:	Sp4_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	6
Number of overlap:	12
Similarity score:	0.00406431

Alignment:

```
BVVHAGGGGGCGRDHHB
TGYCAGGGGGCR-----
```

Original motif

Consensus sequence: BDHHMCGCCCCCTHVBB

Reverse complement motif

Consensus sequence: BVVHAGGGGGCGRDHHB

Motif ID:	UP00047

Motif name:	Zbtb7b_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	12
Similarity score:	0.00486866

Alignment:

```
VHWTTHGGGGGGVDD
--TGYCAGGGGGCR-
```

Original motif

Consensus sequence: DDVCCCCCCHAAWHB

Reverse complement motif

Consensus sequence: VHWTTHGGGGGGVDD

Motif ID:	UP00079
Motif name:	Esrra_secondary
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:	12

Similarity score: 0.00862553

Alignment:
VKBBAGGGGTCAHDBBH
TGYCAGGGGGCR-----

Original motif
Consensus sequence: VKBBAGGGGTCAHDBBH

Reverse complement motif
Consensus sequence: DBBHHTGACCCCTBBYV

Motif ID:	UP00024
Motif name:	Glis2_primary
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:	12
Similarity score:	0.00936306

Alignment:
HKBBGGGGGGTCVHHH
-TGYCAGGGGGCR---

Original motif
Consensus sequence: HHHVGACCCCCCVBRD

Reverse complement motif
Consensus sequence: HKBBGGGGGGTCVHHH

Dataset #: 3 **Motif ID: 89** **Motif name: Klf4**

Original motif

Consensus sequence: DGGGYGKGGC

Reverse complement motif

Consensus sequence: GCCYCMCCCD

Best Matches for Motif ID 89 (Highest to Lowest)

Motif ID:	UP00093
Motif name:	Klf7_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	10
Similarity score:	0

Alignment:

DHHDGGGCGRGGKHBH
---DGGGYGKGGC---

Original motif
Consensus sequence: HBDRCCMCGCCCHHHD

Reverse complement motif
Consensus sequence: DHHDGGGCGRGGKHBH

Motif ID:	UP00021
Motif name:	Zfp281_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:	10
Similarity score:	0.0153308

Alignment:
DBCCCCCCCCCCMYC
---GCCYCMCCCD--

Original motif
Consensus sequence: DBCCCCCCCCCCMYC

Reverse complement motif
Consensus sequence: GKRGGGGGGGGGBD

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:	3
Number of overlap:	10
Similarity score:	0.0186791

Alignment:

```
BDWAGGCGTGBCHHD
--DGGGYGKGGC---
```

Original motif

Consensus sequence: BDWAGGCGTGBCHHD

Reverse complement motif

Consensus sequence: HHDGBCACGCCTWDB

Motif ID:	UP00022

Motif name:	Zfp740_primary
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:	10
Similarity score:	0.0218399

Alignment:

```
HVBCCCCCCCCMHHHB
--GCCYCMCCCD----
```

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:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	10
Similarity score:	0.0249586

Alignment:
VHTGCGGGGGCGGH
GCCYCMCCCD----

Original motif
Consensus sequence: HCCGCCCCCGCAHB

Reverse complement motif
Consensus sequence: VHTGCGGGGGCGGH

Dataset #: 3 Motif ID: 90 Motif name: Mafb

Original motif
Consensus sequence: GCTGACDB

Reverse complement motif
Consensus sequence: BHGTCAGC

Best Matches for Motif ID 90 (Highest to Lowest)

Motif ID:	UP00044
Motif name:	Mafk_primary
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:	8
Similarity score:	0.00415984

Alignment:

```
DWAAAWTGCTGACTH
-------GCTGACDB
```

Original motif

Consensus sequence: DWAAAWTGCTGACTH

Reverse complement motif

Consensus sequence: HAGTCAGCAWTTTWD

Motif ID:	UP00045
Motif name:	Mafb_primary
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:	8
Similarity score:	0.012743

Alignment:

HAAWDTGCTGACDWARH
------GCTGACDB---

Original motif

Consensus sequence: HAAWDTGCTGACDWARH

Reverse complement motif

Consensus sequence: DMTWDGTCAGCADWTTH

Motif ID:	UP00099
Motif name:	Ascl2_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:	8
Similarity score:	0.0222535

Alignment:
HHDVVGCAGCTGVBKVB
--------GCTGACDB-

Original motif

Consensus sequence: BBYVVCAGCTGCBVHHD

Reverse complement motif

Consensus sequence: HHDVVGCAGCTGVBKVB

Motif ID:	UP00527
Motif name:	Foxn4_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:	8
Similarity score:	0.0269322

Alignment:

```
VHYTCCDWCCGCGTCMMTHWHV
----BHGTCAGC----------
```

Original motif

Consensus sequence: VDWDARRGACGCGGWHGGAKHV

Reverse complement motif

Consensus sequence: VHYTCCDWCCGCGTCMMTHWHV

Motif ID:	UP00050

Motif name:	Bhlhb2_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:	8
Similarity score:	0.0319883

Alignment:

```
ACHRBHDTCCACGTGYAHHBMHM
----BHGTCAGC-----------
```

Original motif

Consensus sequence: YDYBDHTMCACGTGGADDBMDGT

Reverse complement motif

Consensus sequence: ACHRBHDTCCACGTGYAHHBMHM

Dataset #: 3 **Motif ID: 91** **Motif name: MAX**

Original motif

Consensus sequence: DAHCACGTGD

Reverse complement motif

Consensus sequence: BCACGTGDTD

Best Matches for Motif ID 91 (Highest to Lowest)

Motif ID:	UP00060
Motif name:	Max_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:	10
Similarity score:	0

Alignment:

```
HHVBABCACGTGSTHD
---DAHCACGTGD---
```

Original motif

Consensus sequence: DDASCACGTGBTBVDD

Reverse complement motif

Consensus sequence: HHVBABCACGTGSTHD

Motif ID:	UP00050
Motif name:	Bhlhb2_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:	10
Similarity score:	0.018544

Alignment:

```
DDHBHBSTCACGTGAHBBDHHM
-------BCACGTGDTD-----
```

Original motif

Consensus sequence: RDHDBVDTCACGTGASBHVHDH

Reverse complement motif

Consensus sequence: DDHBHBSTCACGTGAHBBDHHM

Motif ID:	UP00050
Motif name:	Bhlhb2_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: 10
Similarity score: 0.0267839

Alignment:
ACHRBHDTCCACGTGYAHHBMHM
------DAHCACGTGD-------

Original motif
Consensus sequence: YDYBDHTMCACGTGGADDBMDGT

Reverse complement motif
Consensus sequence: ACHRBHDTCCACGTGYAHHBMHM

Motif ID: UP00046
Motif name: Tcfe2a_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: 10
Similarity score: 0.0321448

Alignment:
DHDBHGCACCTGBDDVB
-----BCACGTGDTD--

Original motif

Reverse complement motif

Consensus sequence: VBHHVCAGGTGCDVDHD

Consensus sequence: DHDBHGCACCTGBDDVB

Motif ID:	UP00036
Motif name:	Myf6_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:	0.042685

Alignment:

```
VVDBAACAGBTGBYHB
---DAHCACGTGD---
```

Original motif

Consensus sequence: VVDBAACAGBTGBYHB

Reverse complement motif

Consensus sequence: BDKVCABCTGTTBDBV

Dataset #: 3 **Motif ID: 92** **Motif name: MIZF**

Original motif

Consensus sequence: BAACGTCCGC

Reverse complement motif

Consensus sequence: GCGGACGTTV

Best Matches for Motif ID 92 (Highest to Lowest)

Motif ID:	UP00419
Motif name:	Spic
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	10
Similarity score:	0

Alignment:

```
DWACTTCCRCTTTB
BAACGTCCGC----
```

Original motif

Consensus sequence: VAAAGMGGAAGTWD

Reverse complement motif

Consensus sequence: DWACTTCCRCTTTB

Motif ID:	UP00409
Motif name:	Elf5
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:	10
Similarity score:	0.00379999

Alignment:

```
DWACTTCCRSDTWV
BAACGTCCGC----
```

Original motif

Consensus sequence: BWAHSMGGAAGTWD

Reverse complement motif

Consensus sequence: DWACTTCCRSDTWV

Motif ID:	UP00413

Motif name:	Elf4
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:	10
Similarity score:	0.0124101

Alignment:

```
DBBHACTTCCGGKWTH
--BAACGTCCGC----
```

Original motif

Consensus sequence: DBBHACTTCCGGKWTH

Reverse complement motif

Consensus sequence: HAWYCCGGAAGTHBBD

Motif ID:	UP00404
Motif name:	Elf2
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: 0.0128348

Alignment:
DBBHACTTCCGGDWDB
--BAACGTCCGC----

Original motif
Consensus sequence: DBBHACTTCCGGDWDB

Reverse complement motif
Consensus sequence: BDWDCCGGAAGTHBBD

Motif ID:	UP00085
Motif name:	Sfpi1_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	10
Similarity score:	0.0141516

Alignment:
HDACTTCCBCWTDV
BAACGTCCGC----

Original motif
Consensus sequence: BDAWGVGGAAGTDH

Reverse complement motif
Consensus sequence: HDACTTCCBCWTDV

Dataset #: 3 **Motif ID: 93** **Motif name: Myb**

Original motif

Consensus sequence: GRCVGTTG

Reverse complement motif

Consensus sequence: CAACVGMC

Best Matches for Motif ID 93 (Highest to Lowest)

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:	5
Number of overlap:	8
Similarity score:	0

Alignment:

BHCGGCAGTTGGBBB
---GRCVGTTG----

Original motif
Consensus sequence: BBVCCAACTGCCGHB

Reverse complement motif
Consensus sequence: BHCGGCAGTTGGBBB

Motif ID:	UP00092
Motif name:	Myb_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:	8
Similarity score:	0.00802457

Alignment:
DBVKGGCAGTTGGTHB
----GRCVGTTG----

Original motif
Consensus sequence: BDACCAACTGCCRBBH

Reverse complement motif
Consensus sequence: DBVKGGCAGTTGGTHB

Motif ID:	UP00098
Motif name:	Rfx3_primary
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:	0.0217124

Alignment:

```
HDTBHHCCHTAGCAACVVDHHHH
------------CAACVGMC---
```

Original motif

Consensus sequence: HDTBHHCCHTAGCAACVVDHHHH

Reverse complement motif

Consensus sequence: HHHHDVVGTTGCTAHGGDHBAHH

Motif ID:	UP00227

Motif name:	Duxl
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	8
Similarity score:	0.035989

Alignment:

```
YRACCCAATCAACVVHV
GRCVGTTG---------
```

Original motif

Consensus sequence: YRACCCAATCAACVVHV

Reverse complement motif

Consensus sequence: VHVVGTTGATTGGGTMK

Motif ID:	UP00081
Motif name:	Mybl1_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:	8
Similarity score:	0.0421486

Alignment:
HDDDHAACCGTTAHHHD
-----GRCVGTTG----

Original motif
Consensus sequence: HDDDHAACCGTTAHHHD

Reverse complement motif
Consensus sequence: DHHHTAACGGTTHDHDH

Dataset #: 3 Motif ID: 94 Motif name: Myc

Original motif
Consensus sequence: VGCACGTGGH

Reverse complement motif
Consensus sequence: DCCACGTGCV

Best Matches for Motif ID 94 (Highest to Lowest)

Motif ID:	UP00060
Motif name:	Max_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

Alignment:

```
DDASCACGTGBTBVDD
--VGCACGTGGH----
```

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:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	8
Number of overlap:	10
Similarity score:	0.00631885

Alignment:

ACHRBHDTCCACGTGYAHHBMHM
-------DCCACGTGCV------

Original motif

Consensus sequence: YDYBDHTMCACGTGGADDBMDGT

Reverse complement motif

Consensus sequence: ACHRBHDTCCACGTGYAHHBMHM

Motif ID:	UP00050
Motif name:	Bhlhb2_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:	10
Similarity score:	0.00821668

Alignment:

DDHBHBSTCACGTGAHBBDHHM
------DCCACGTGCV------

Original motif

Consensus sequence: RDHDBVDTCACGTGASBHVHDH

Reverse complement motif

Consensus sequence: DDHBHBSTCACGTGAHBBDHHM

Motif ID:	UP00046
Motif name:	Tcfe2a_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	10
Similarity score:	0.0140005

Alignment:

```
DHDBHGCACCTGBDDVB
----VGCACGTGGH---
```

Original motif

Consensus sequence: VBHHVCAGGTGCDVDHD

Reverse complement motif

Consensus sequence: DHDBHGCACCTGBDDVB

Motif ID:	UP00060

Motif name:	Max_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	10
Similarity score:	0.0308912

Alignment:

```
BBGHCACGCGACDD
--VGCACGTGGH--
```

Original motif

Consensus sequence: BBGHCACGCGACDD

Reverse complement motif

Consensus sequence: HDGTCGCGTGDCVB

Dataset #: 3 **Motif ID: 95** **Motif name: MYCMAX**

Original motif

Consensus sequence: RASCACGTGGT

Reverse complement motif

Consensus sequence: ACCACGTGSTM

Best Matches for Motif ID 95 (Highest to Lowest)

Motif ID:	UP00060
Motif name:	Max_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	11
Similarity score:	0

Alignment:

```
HHVBABCACGTGSTHD
---RASCACGTGGT--
```

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:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	8
Number of overlap:	11
Similarity score:	0.025477

Alignment:

```
ACHRBHDTCCACGTGYAHHBMHM
-------ACCACGTGSTM-----
```

Original motif

Consensus sequence: YDYBDHTMCACGTGGADDBMDGT

Reverse complement motif

Consensus sequence: ACHRBHDTCCACGTGYAHHBMHM

Motif ID:	UP00050
Motif name:	Bhlhb2_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: 11
Similarity score: 0.033078

Alignment:
RDHDBVDTCACGTGASBHVHDH
-----RASCACGTGGT------

Original motif
Consensus sequence: RDHDBVDTCACGTGASBHVHDH

Reverse complement motif
Consensus sequence: DDHBHBSTCACGTGAHBBDHHM

Motif ID: UP00046
Motif name: Tcfe2a_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: 11
Similarity score: 0.0375583

Alignment:
VBHHVCAGGTGCDVDHD
---ACCACGTGSTM---

Original motif

Reverse complement motif

Consensus sequence: VBHHVCAGGTGCDVDHD

Consensus sequence: DHDBHGCACCTGBDDVB

Motif ID:	UP00046
Motif name:	Tcfe2a_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:	11
Similarity score:	0.0452419

Alignment:

```
HVDDVCAGATGKYHBBV
--RASCACGTGGT----
```

Original motif

Consensus sequence: HVDDVCAGATGKYHBBV

Reverse complement motif

Consensus sequence: VBBDMYCATCTGVHHBH

Dataset #: 3 **Motif ID: 96** **Motif name: Mycn**

Original motif

Consensus sequence: HSCACGTGGC

Reverse complement motif

Consensus sequence: GCCACGTGSD

Best Matches for Motif ID 96 (Highest to Lowest)

Motif ID:	UP00060
Motif name:	Max_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

Alignment:

```
DDASCACGTGBTBVDD
--HSCACGTGGC----
```

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:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	7
Number of overlap:	10
Similarity score:	0.00783793

Alignment:

```
ACHRBHDTCCACGTGYAHHBMHM
-------GCCACGTGSD------
```

Original motif

Consensus sequence: YDYBDHTMCACGTGGADDBMDGT

Reverse complement motif

Consensus sequence: ACHRBHDTCCACGTGYAHHBMHM

Motif ID: UP00050

Motif name:	Bhlhb2_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:	10
Similarity score:	0.0132858

Alignment:

```
DDHBHBSTCACGTGAHBBDHHM
------GCCACGTGSD------
```

Original motif

Consensus sequence: RDHDBVDTCACGTGASBHVHDH

Reverse complement motif

Consensus sequence: DDHBHBSTCACGTGAHBBDHHM

Motif ID:	UP00046
Motif name:	Tcfe2a_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:	10

Similarity score: 0.0227933

Alignment:
VBHHVCAGGTGCDVDHD
---GCCACGTGSD----

Original motif
Consensus sequence: VBHHVCAGGTGCDVDHD

Reverse complement motif
Consensus sequence: DHDBHGCACCTGBDDVB

Motif ID: UP00060
Motif name: Max_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: 10
Similarity score: 0.0257011

Alignment:
BBGHCACGCGACDD
--HSCACGTGGC--

Original motif
Consensus sequence: BBGHCACGCGACDD

Reverse complement motif
Consensus sequence: HDGTCGCGTGDCVB

Dataset #: 3 **Motif ID: 97** **Motif name: Myf**

Original motif

Consensus sequence: MRGCARCWGSWG

Reverse complement motif

Consensus sequence: CWSCWGMTGCKR

Best Matches for Motif ID 97 (Highest to Lowest)

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:	Backward
Position number:	4
Number of overlap:	12
Similarity score:	0

Alignment:

BBYVVCAGCTGCBVHHD
--CWSCWGMTGCKR---

Original motif

Consensus sequence: BBYVVCAGCTGCBVHHD

Reverse complement motif

Consensus sequence: HHDVVGCAGCTGVBKVB

Motif ID:	UP00046
Motif name:	Tcfe2a_primary
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:	12
Similarity score:	0.0150333

Alignment:
VBHHVCAGGTGCDVDHD
--CWSCWGMTGCKR---

Original motif

Consensus sequence: VBHHVCAGGTGCDVDHD

Reverse complement motif

Consensus sequence: DHDBHGCACCTGBDDVB

Motif ID:	UP00036
Motif name:	Myf6_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:	12
Similarity score:	0.0199226

Alignment:

```
VVDBAACAGBTGBYHB
MRGCARCWGSWG----
```

Original motif

Consensus sequence: VVDBAACAGBTGBYHB

Reverse complement motif

Consensus sequence: BDKVCABCTGTTBDBV

Motif ID:	UP00081

Motif name:	Mybl1_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	12
Similarity score:	0.0255212

Alignment:

```
BBVCCAACTGCCGHB
-MRGCARCWGSWG--
```

Original motif

Consensus sequence: BBVCCAACTGCCGHB

Reverse complement motif

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:	Forward
Position number:	2
Number of overlap:	12

Similarity score: 0.0289533

Alignment:
DVBCYTGCTGBGDDD
-CWSCWGMTGCKR--

Original motif
Consensus sequence: HHDCVCAGCAKGVVD

Reverse complement motif
Consensus sequence: DVBCYTGCTGBGDDD

Dataset #: 3 Motif ID: 98 Motif name: MZF1_1-4

Original motif
Consensus sequence: BGGGGA

Reverse complement motif
Consensus sequence: TCCCCV

Best Matches for Motif ID 98 (Highest to Lowest)

Motif ID:	UP00176
Motif name:	Crx
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:	6
Similarity score:	0

Alignment:

```
YBWDGGGGATTARCCD
---BGGGGA-------
```

Original motif

Consensus sequence: YBWDGGGGATTARCCD

Reverse complement motif

Consensus sequence: DGGMTAATCCCCDWBK

Motif ID:	UP00265
Motif name:	Pitx3
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:	6
Similarity score:	0.00193291

Alignment:

GBHDGCTAATCCCCCB
---------TCCCCV-

Original motif
Consensus sequence: VGGGGGATTAGCDDBC

Reverse complement motif
Consensus sequence: GBHDGCTAATCCCCCB

Motif ID:	UP00239
Motif name:	Obox2
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:	0.00284735

Alignment:
HTARTTAATCCCCCKBD
--------TCCCCV---

Original motif
Consensus sequence: DBRGGGGGATTAAMTAH

Reverse complement motif
Consensus sequence: HTARTTAATCCCCCKBD

Motif ID:	UP00216
Motif name:	Obox1
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:	6
Similarity score:	0.00461976

Alignment:

```
DDARGGGGATTAACDHH
---BGGGGA--------
```

Original motif

Consensus sequence: DDARGGGGATTAACDHH

Reverse complement motif

Consensus sequence: DHDGTTAATCCCCKTDD

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:	0.00641818

Alignment:

```
HHWGTTAATCCCCCBBH
--------TCCCCV---
```

Original motif

Consensus sequence: HBVGGGGGATTAACWHH

Reverse complement motif

Consensus sequence: HHWGTTAATCCCCCBBH

Dataset #: 3 Motif ID: 99 Motif name: MZF1_5-13

Original motif

Consensus sequence: BKAGGGGDAD

Reverse complement motif

Consensus sequence: BTHCCCCTYB

Best Matches for Motif ID 99 (Highest to Lowest)

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:	4
Number of overlap:	10
Similarity score:	0.0090535

Alignment:

```
DDDTWCCCCCCGGDRVH
---BTHCCCCTYB----
```

Original motif

Consensus sequence: DDDTWCCCCCCGGDRVH

Reverse complement motif

Consensus sequence: HVKDCCGGGGGGWADDD

Motif ID:	UP00007
Motif name:	Egr1_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:	10
Similarity score:	0.00910178

Alignment:

```
BBHBGAGTGGGAHHDB
---BKAGGGGDAD---
```

Original motif

Consensus sequence: BBHBGAGTGGGAHHDB

Reverse complement motif

Consensus sequence: BHHDTCCCACTCBDBV

Motif ID:	UP00070
Motif name:	Gcm1_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: 10
Similarity score: 0.0101177

Alignment:
DDBVHATAGGGGRBRMB
-----BKAGGGGDAD--

Original motif
Consensus sequence: DDBVHATAGGGGRBRMB

Reverse complement motif
Consensus sequence: BYMBKCCCCTATDVBHD

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: 1
Number of overlap: 10
Similarity score: 0.0103225

Alignment:
GKRGGGGGGGGGGBD
BKAGGGGDAD-----

Original motif

Reverse complement motif

Consensus sequence: DBCCCCCCCCCCMYC

Consensus sequence: GKRGGGGGGGGGGBD

Motif ID:	UP00099
Motif name:	Ascl2_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:	10
Similarity score:	0.0126235

Alignment:

```
HVDVGGGHGGGGDBHB
-----BKAGGGGDAD-
```

Original motif

Consensus sequence: BHVDCCCCDCCCBDBH

Reverse complement motif

Consensus sequence: HVDVGGGHGGGGDBHB

Dataset #: 3 **Motif ID: 100** **Motif name: NFE2L2**

Original motif

Consensus sequence: RTGACWHAGCA

Reverse complement motif

Consensus sequence: TGCTDWGTCAK

Best Matches for Motif ID 100 (Highest to Lowest)

Motif ID:	UP00103
Motif name:	Jundm2_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:	11
Similarity score:	0.0252843

Alignment:

```
HDDKTGASTCAKHRDB
---RTGACWHAGCA--
```

Original motif

Consensus sequence: VDKDRTGASTCAYHDH

Reverse complement motif

Consensus sequence: HDDKTGASTCAKHRDB

Motif ID:	UP00020
Motif name:	Atf1_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	11
Similarity score:	0.0449032

Alignment:

```
VDATGACGADYADH
--RTGACWHAGCA-
```

Original motif

Consensus sequence: VDATGACGADYADH

Reverse complement motif

Consensus sequence: DDTMDTCGTCATDV

Motif ID:	UP00009

Motif name:	Nr2f2_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:	11
Similarity score:	0.0453065

Alignment:

```
HVBVTGACCCSGBVBV
---RTGACWHAGCA--
```

Original motif

Consensus sequence: VBVBCSGGGTCAVBBH

Reverse complement motif

Consensus sequence: HVBVTGACCCSGBVBV

Motif ID:	UP00045
Motif name:	Mafb_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	11

Similarity score: 0.04674

Alignment:
HAAWDTGCTGACDWARH
-----TGCTDWGTCAK-

Original motif
Consensus sequence: HAAWDTGCTGACDWARH

Reverse complement motif
Consensus sequence: DMTWDGTCAGCADWTTH

Motif ID: UP00050
Motif name: Bhlhb2_primary
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: 11
Similarity score: 0.0473193

Alignment:
RDHDBVDTCACGTGASBHVHDH
-----------RTGACWHAGCA

Original motif
Consensus sequence: RDHDBVDTCACGTGASBHVHDH

Reverse complement motif
Consensus sequence: DDHBHBSTCACGTGAHBBDHHM

Dataset #: 3 Motif ID: 101 Motif name: NFIC

Original motif

Consensus sequence: TTGGCD

Reverse complement motif

Consensus sequence: DGCCAA

Best Matches for Motif ID 101 (Highest to Lowest)

Motif ID:	UP00035
Motif name:	Hic1_primary
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:

DDBHGGTTGGCATVBD
------TTGGCD----

Original motif
Consensus sequence: DBBATGCCAACCHVHH

Reverse complement motif
Consensus sequence: DDBHGGTTGGCATVBD

Motif ID:	UP00538
Motif name:	Gli1_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:	6
Similarity score:	0.0174701

Alignment:
BDDHVDKGCCACCCVCGCTDBVH
------DGCCAA----------

Original motif
Consensus sequence: HVBDAGCGBGGGTGGCRDBDDDB

Reverse complement motif
Consensus sequence: BDDHVDKGCCACCCVCGCTDBVH

Motif ID:	UP00003
Motif name:	E2F3_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:	0.0231918

Alignment:

```
BBBDYTGGCGCCKWDBD
----TTGGCD-------
```

Original motif

Consensus sequence: HBHWYGGCGCCAMDVBB

Reverse complement motif

Consensus sequence: BBBDYTGGCGCCKWDBD

Motif ID:	UP00001

Motif name:	E2F2_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:	0.0258343

Alignment:

```
BBBDTTGGCGCCKWVVD
----TTGGCD-------
```

Original motif

Consensus sequence: HVBWYGGCGCCAADVBB

Reverse complement motif

Consensus sequence: BBBDTTGGCGCCKWVVD

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:	2
Number of overlap:	6

Similarity score: 0.0266372

Alignment:
HDGTCGCGTGDCVB
-------TTGGCD-

Original motif
Consensus sequence: BBGHCACGCGACDD

Reverse complement motif
Consensus sequence: HDGTCGCGTGDCVB

Dataset #: 3 Motif ID: 102 Motif name: NF-kappaB

Original motif
Consensus sequence: GGGRMTTYCC

Reverse complement motif
Consensus sequence: GGMAAYKCCC

Best Matches for Motif ID 102 (Highest to Lowest)

Motif ID:	UP00021
Motif name:	Zfp281_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:	10
Similarity score:	0.0379362

Alignment:

```
VDDAHTGGGGGTHWYYD
-------GGGRMTTYCC
```

Original motif

Consensus sequence: DKKWDACCCCCAHTDDV

Reverse complement motif

Consensus sequence: VDDAHTGGGGGTHWYYD

Motif ID:	UP00176
Motif name:	Crx
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:	10
Similarity score:	0.0387084

Alignment:

DGGMTAATCCCCDWBK
-GGMAAYKCCC-----

Original motif
Consensus sequence: YBWDGGGGATTARCCD

Reverse complement motif
Consensus sequence: DGGMTAATCCCCDWBK

Motif ID:	UP00265
Motif name:	Pitx3
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:	10
Similarity score:	0.0428696

Alignment:
GBHDGCTAATCCCCCB
---GGMAAYKCCC---

Original motif
Consensus sequence: VGGGGGATTAGCDDBC

Reverse complement motif
Consensus sequence: GBHDGCTAATCCCCCB

Motif ID:	UP00422
Motif name:	Etv3
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:	10
Similarity score:	0.0433644

Alignment:

```
DHHACCGGAAKTHBBB
-----GGGRMTTYCC-
```

Original motif

Consensus sequence: VBBHAYTTCCGGTHDH

Reverse complement motif

Consensus sequence: DHHACCGGAAKTHBBB

Motif ID:	UP00035

Motif name:	Hic1_secondary
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:	10
Similarity score:	0.0443841

Alignment:

```
DBDDRTGCCCAWDHDV
GGMAAYKCCC------
```

Original motif

Consensus sequence: DBDDRTGCCCAWDHDV

Reverse complement motif

Consensus sequence: VHHDWTGGGCAMDHBH

Dataset #: 3 Motif ID: 103 Motif name: NFKB1

Original motif

Consensus sequence: GGGGRTTCCCC

Reverse complement motif

Consensus sequence: GGGGAAKCCCC

Best Matches for Motif ID 103 (Highest to Lowest)

Motif ID:	UP00021
Motif name:	Zfp281_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:	11
Similarity score:	0.0371794

Alignment:

```
VDDAHTGGGGGTHWYYD
------GGGGRTTCCCC
```

Original motif

Consensus sequence: DKKWDACCCCCAHTDDV

Reverse complement motif

Consensus sequence: VDDAHTGGGGGTHWYYD

Motif ID:	UP00088
Motif name:	Plagl1_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	11
Similarity score:	0.0407901

Alignment:

```
DBHGGGGGGTACCHHHD
----GGGGRTTCCCC--
```

Original motif

Consensus sequence: DBHGGGGGGTACCHHHD

Reverse complement motif

Consensus sequence: DHDDGGTACCCCCCHBH

Motif ID:	UP00088
Motif name:	Plagl1_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: 11
Similarity score: 0.0459696

Alignment:
BHDGGGGSSCCCCBVV
--GGGGRTTCCCC---

Original motif
Consensus sequence: BHDGGGGSSCCCCBVV

Reverse complement motif
Consensus sequence: VBVGGGGSSCCCCHHV

Motif ID: UP00176
Motif name: Crx
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: 11
Similarity score: 0.0464973

Alignment:
DGGMTAATCCCCDWBK
-GGGGAAKCCCC----

Original motif

Reverse complement motif

Consensus sequence: YBWDGGGGATTARCCD

Consensus sequence: DGGMTAATCCCCDWBK

Motif ID:	UP00265
Motif name:	Pitx3
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:	11
Similarity score:	0.048533

Alignment:

```
GBHDGCTAATCCCCCB
---GGGGAAKCCCC--
```

Original motif

Consensus sequence: VGGGGGATTAGCDDBC

Reverse complement motif

Consensus sequence: GBHDGCTAATCCCCCB

Dataset #: 3 **Motif ID: 104** **Motif name: NFYA**

Original motif

Consensus sequence: VBBRRCCAATSRGVDB

Reverse complement motif

Consensus sequence: BHVCKSATTGGMKBVV

Best Matches for Motif ID 104 (Highest to Lowest)

Motif ID:	UP00083
Motif name:	Tcf7l2_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:	16
Similarity score:	0.0368059

Alignment:

```
DHVBKGATTGATVBDV
BHVCKSATTGGMKBVV
```

Original motif

Consensus sequence: VDVVATCAATCRBBHD

Reverse complement motif

Consensus sequence: DHVBKGATTGATVBDV

Motif ID:	UP00220
Motif name:	Nkx1-1
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	16
Similarity score:	0.0372416

Alignment:

```
WGHRCYAATTRGYGSDV
-BHVCKSATTGGMKBVV
```

Original motif

Consensus sequence: WGHRCYAATTRGYGSDV

Reverse complement motif

Consensus sequence: BHSCMCKAATTMGMDCW

Motif ID:	UP00156

Motif name:	Msx2
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	16
Similarity score:	0.0372531

Alignment:

```
VVDGACYAATTAGYDHT
VBBRRCCAATSRGVDB-
```

Original motif

Consensus sequence: VVDGACYAATTAGYDHT

Reverse complement motif

Consensus sequence: ADHKCTAATTKGTCDBV

Motif ID:	UP00055
Motif name:	Hbp1_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:	16

Similarity score: 0.0374245

Alignment:
HBTHVACAATGGGMDHD
VBBRRCCAATSRGVDB-

Original motif
Consensus sequence: DDDYCCCATTGTVHABH

Reverse complement motif
Consensus sequence: HBTHVACAATGGGMDHD

Motif ID:	UP00162
Motif name:	Evx1
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:	16
Similarity score:	0.0384724

Alignment:
WVHVCTAATTAGYBVDV
-BHVCKSATTGGMKBVV

Original motif
Consensus sequence: WVHVCTAATTAGYBVDV

Reverse complement motif
Consensus sequence: VDVBMCTAATTAGBHVW

Dataset #: 3 **Motif ID: 105** **Motif name: NHLH1**

Original motif

Consensus sequence: VCGCAGCTGCGB

Reverse complement motif

Consensus sequence: VCGCAGCTGCGV

Best Matches for Motif ID 105 (Highest to Lowest)

Motif ID:	UP00099
Motif name:	Ascl2_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	12
Similarity score:	0

Alignment:

HHDVVGCAGCTGVBKVB
---VCGCAGCTGCGB--

Original motif

Consensus sequence: BBYVVCAGCTGCBVHHD

Reverse complement motif

Consensus sequence: HHDVVGCAGCTGVBKVB

Motif ID:	UP00046
Motif name:	Tcfe2a_primary
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:	12
Similarity score:	0.0128197

Alignment:
VBHHVCAGGTGCDVDHD
--VCGCAGCTGCGV---

Original motif

Consensus sequence: VBHHVCAGGTGCDVDHD

Reverse complement motif

Consensus sequence: DHDBHGCACCTGBDDVB

Motif ID:	UP00046
Motif name:	Tcfe2a_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:	12
Similarity score:	0.0308854

Alignment:

```
VBBDMYCATCTGVHHBH
---VCGCAGCTGCGB--
```

Original motif

Consensus sequence: HVDDVCAGATGKYHBBV

Reverse complement motif

Consensus sequence: VBBDMYCATCTGVHHBH

Motif ID:	UP00036

Motif name:	Myf6_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:	12
Similarity score:	0.0327062

Alignment:

```
VVDBAACAGBTGBYHB
---VCGCAGCTGCGB-
```

Original motif

Consensus sequence: VVDBAACAGBTGBYHB

Reverse complement motif

Consensus sequence: BDKVCABCTGTTBDBV

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:	2
Number of overlap:	12

Similarity score: 0.0363264

Alignment:
DVHCCTGCTGBGDDB
-VCGCAGCTGCGV--

Original motif
Consensus sequence: BHDCVCAGCAGGHVD

Reverse complement motif
Consensus sequence: DVHCCTGCTGBGDDB

Dataset #: 3 Motif ID: 106 Motif name: Nkx3-2

Original motif
Consensus sequence: BTRAGTGVV

Reverse complement motif
Consensus sequence: BVCACTKAH

Best Matches for Motif ID 106 (Highest to Lowest)

Motif ID:	UP00147
Motif name:	Nkx2-6
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:	9
Similarity score:	0

Alignment:

```
AAHVTTAAGTGGHTDD
----BTRAGTGVV---
```

Original motif

Consensus sequence: DDADCCACTTAAVHTT

Reverse complement motif

Consensus sequence: AAHVTTAAGTGGHTDD

Motif ID:	UP00228
Motif name:	Bapx1
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:	9
Similarity score:	0.00188665

Alignment:

VHHAACCACTTAAVVAH
----BVCACTKAH----

Original motif

Consensus sequence: VHHAACCACTTAAVVAH

Reverse complement motif

Consensus sequence: DTBVTTAAGTGGTTHHV

Motif ID:	UP00249
Motif name:	Nkx2-5
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:	9
Similarity score:	0.00571144

Alignment:
HDADCCACTTRAAWTT
---BVCACTKAH----

Original motif

Consensus sequence: HDADCCACTTRAAWTT

Reverse complement motif

Consensus sequence: AAWTTMAAGTGGHTDH

Motif ID:	UP00107
Motif name:	Nkx2-4
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:	9
Similarity score:	0.00990848

Alignment:

```
HDAVCCACTTRAMWTT
---BVCACTKAH----
```

Original motif

Consensus sequence: HDAVCCACTTRAMWTT

Reverse complement motif

Consensus sequence: AAWYTMAAGTGGVTDH

Motif ID:	UP00165

Motif name:	Titf1
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:	9
Similarity score:	0.0125254

Alignment:

```
BVABCCACTTGAMHTT
---BVCACTKAH----
```

Original motif

Consensus sequence: BVABCCACTTGAMHTT

Reverse complement motif

Consensus sequence: AAHYTCAAGTGGBTBV

Dataset #: 3 Motif ID: 107 Motif name: NR2F1

Original motif

Consensus sequence: TGAMCTTTGMMCYT

Reverse complement motif

Consensus sequence: AKGYYCAAAGRTCA

Best Matches for Motif ID 107 (Highest to Lowest)

Motif ID:	UP00083
Motif name:	Tcf7l2_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:	14
Similarity score:	0.0452364

Alignment:

```
DDDYCCTTTGATSTDDV
-TGAMCTTTGMMCYT--
```

Original motif

Consensus sequence: DDDYCCTTTGATSTDDV

Reverse complement motif

Consensus sequence: BDDASATCAAAGGMDDD

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:	2
Number of overlap:	14
Similarity score:	0.0453449

Alignment:

```
VDDAGATCAAAGGKDDD
--AKGYYCAAAGRTCA-
```

Original motif

Consensus sequence: DDDYCCTTTGATCTDDV

Reverse complement motif

Consensus sequence: VDDAGATCAAAGGKDDD

Motif ID:	UP00539
Motif name:	Gli2_v015681_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	8

Number of overlap: 14
Similarity score: 0.0461358

Alignment:
DVMHHDHKGACCCTCCTSVCBH
-------TGAMCTTTGMMCYT-

Original motif
Consensus sequence: HVGVSAGGAGGGTCYHHHHYVH

Reverse complement motif
Consensus sequence: DVMHHDHKGACCCTCCTSVCBH

Motif ID: UP00054
Motif name: Tcf7_primary
Species: Mus musculus
Matching format of first motif: Reverse Complement
Matching format of second motif: Original Motif
Direction: Backward
Position number: 2
Number of overlap: 14
Similarity score: 0.0461768

Alignment:
BHHASATCAAAGGAHHH
--AKGYYCAAAGRTCA-

Original motif

Reverse complement motif

Consensus sequence: BHHASATCAAAGGAHHH

Consensus sequence: HHHTCCTTTGATSTHHV

Motif ID:	UP00058
Motif name:	Tcf3_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	14
Similarity score:	0.0473628

Alignment:

```
HHHASATCAAAGVRHHH
--AKGYYCAAAGRTCA-
```

Original motif

Consensus sequence: HHHASATCAAAGVRHHH

Reverse complement motif

Consensus sequence: HHHKVCTTTGATSTHHH

Dataset #: 3 **Motif ID: 108** **Motif name: NR4A2**

Original motif

Consensus sequence: AAGGTCAC

Reverse complement motif

Consensus sequence: GTGACCTT

Best Matches for Motif ID 108 (Highest to Lowest)

Motif ID:	UP00048
Motif name:	Rara
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:	8
Similarity score:	0

Alignment:

```
DHBHAAAGGTCACVHD
-----AAGGTCAC---
```

Original motif

Consensus sequence: DHBHAAAGGTCACVHD

Reverse complement motif

Consensus sequence: HHVGTGACCTTTDVDD

Motif ID:	UP00009
Motif name:	Nr2f2_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:	8
Similarity score:	0.0074527

Alignment:

```
DHBHAAAGGTCAHVHB
-----AAGGTCAC---
```

Original motif

Consensus sequence: DHBHAAAGGTCAHVHB

Reverse complement motif

Consensus sequence: BHVDTGACCTTTDVDD

Motif ID:	UP00079

Motif name:	Esrra_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:	8
Similarity score:	0.01542

Alignment:

```
DHDBCAAGGTCAHVBDH
-----AAGGTCAC----
```

Original motif

Consensus sequence: DHDBCAAGGTCAHVBDH

Reverse complement motif

Consensus sequence: HHBVHTGACCTTGVDHD

Motif ID:	UP00009
Motif name:	Nr2f2_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:	8

Similarity score: 0.0395644

Alignment:
VBVBCSGGGTCAVBBH
-----AAGGTCAC---

Original motif
Consensus sequence: VBVBCSGGGTCAVBBH

Reverse complement motif
Consensus sequence: HVBVTGACCCSGBVBV

Motif ID: UP00082
Motif name: Zfp187_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: 8
Similarity score: 0.0407874

Alignment:
DDGMCCTBGTCCHYHV
GTGACCTT--------

Original motif
Consensus sequence: DDGMCCTBGTCCHYHV

Reverse complement motif
Consensus sequence: VHMDGGACVAGGRCDH

Dataset #: 3 Motif ID: 109 Motif name: Pax5

Original motif

Consensus sequence: DGVBCABTGDWGCGKRRCSR

Reverse complement motif

Consensus sequence: MSGKKRCGCWDCABTGBBCD

Best Matches for Motif ID 109 (Highest to Lowest)

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:	Backward
Position number:	2
Number of overlap:	20
Similarity score:	0.0499537

Alignment:

DDRMHBACGCGYGCGTDGBBDB
-DGVBCABTGDWGCGKRRCSR-

Original motif

Consensus sequence: DDRMHBACGCGYGCGTDGBBDB

Reverse complement motif

Consensus sequence: BDVBCDACGCKCGCGTBHRKHD

Motif ID:	UP00526
Motif name:	Foxn1_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	20
Similarity score:	0.0520196

Alignment:
HDWHMHGACGCGCGTRBVVBHW
DGVBCABTGDWGCGKRRCSR--

Original motif

Consensus sequence: WHVBVVMACGCGCGTCDYHWDH

Reverse complement motif

Consensus sequence: HDWHMHGACGCGCGTRBVVBHW

Motif ID:	UP00539
Motif name:	Gli2_v016060_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:	20
Similarity score:	0.0542764

Alignment:

```
HDBABCGBKRGYGGCGMSBHAK
-DGVBCABTGDWGCGKRRCSR-
```

Original motif

Consensus sequence: RTHBSYCGCCMCMYVCGBTVDH

Reverse complement motif

Consensus sequence: HDBABCGBKRGYGGCGMSBHAK

Motif ID:	UP00528

Motif name:	Foxm1_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:	20
Similarity score:	0.0560636

Alignment:

```
DCATDBTGHGCATKMTTBRSWR
--MSGKKRCGCWDCABTGBBCD
```

Original motif

Consensus sequence: MWSMBAARRATGCDCABHATGD

Reverse complement motif

Consensus sequence: DCATDBTGHGCATKMTTBRSWR

Motif ID:	UP00540
Motif name:	Gli3_v016060_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	20

Similarity score: 0.0595671

Alignment:
HHBSHTCGTGRGTGGKGDBVWMV
DGVBCABTGDWGCGKRRCSR---

Original motif
Consensus sequence: VYWVVHCRCCACMCACGAHSBHH

Reverse complement motif
Consensus sequence: HHBSHTCGTGRGTGGKGDBVWMV

Dataset #: 3 Motif ID: 110 Motif name: PLAG1

Original motif
Consensus sequence: GGGGCCCAAGGGGG

Reverse complement motif
Consensus sequence: CCCCCTTGGGCCCC

Best Matches for Motif ID 110 (Highest to Lowest)

Motif ID:	UP00102
Motif name:	Zic1_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement

Direction:	Forward
Position number:	1
Number of overlap:	14
Similarity score:	0.0499525

Alignment:

```
CCCCCCCGGGGGHB
CCCCCTTGGGCCCC
```

Original motif

Consensus sequence: BHCCCCCGGGGGGG

Reverse complement motif

Consensus sequence: CCCCCCCGGGGGHB

Motif ID:	UP00538
Motif name:	Gli1_v015681_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	14
Similarity score:	0.0540613

Alignment:

```
BBBDVVRGACCACCCAVGABBAB
---------CCCCCTTGGGCCCC
```

Original motif

Consensus sequence: BBBDVVRGACCACCCAVGABBAB

Reverse complement motif

Consensus sequence: BTBVTCVTGGGTGGTCMVVDVBB

Motif ID:	UP00057
Motif name:	Zic2_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	14
Similarity score:	0.0548411

Alignment:

```
VCCCCCCCGGGGGRB
-CCCCCTTGGGCCCC
```

Original motif

Consensus sequence: BMCCCCCGGGGGGGB

Reverse complement motif

Consensus sequence: VCCCCCCCGGGGGRB

Motif ID:	UP00005
Motif name:	Tcfap2a_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:	14
Similarity score:	0.0556785

Alignment:

```
HHRCCBBWGGDCDB
GGGGCCCAAGGGGG
```

Original motif

Consensus sequence: HHRCCBBWGGDCDB

Reverse complement motif

Consensus sequence: BDGHCCWBVGGKDH

Motif ID:	UP00006
Motif name:	Zic3_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	14
Similarity score:	0.056976

Alignment:
VCCCCCCCGGGGGRB
-CCCCCTTGGGCCCC

Original motif
Consensus sequence: BMCCCCCGGGGGGGB

Reverse complement motif
Consensus sequence: VCCCCCCCGGGGGRB

Dataset #: 3 Motif ID: 111 Motif name: PPARG

Original motif
Consensus sequence: STAGGTCACBGTGACCYABT

Reverse complement motif
Consensus sequence: ABTMGGTCACBGTGACCTAS

Best Matches for Motif ID 111 (Highest to Lowest)

Motif ID:	UP00098
Motif name:	Rfx3_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:	20
Similarity score:	0.0610439

Alignment:

```
BDBBVBVGTAWCCAAGVBHBAGB
--ABTMGGTCACBGTGACCTAS-
```

Original motif

Consensus sequence: VCTBHBVCTTGGWTACVVVVVDB

Reverse complement motif

Consensus sequence: BDBBVBVGTAWCCAAGVBHBAGB

Motif ID:	UP00034
Motif name:	Sox7_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:	20
Similarity score:	0.0641524

Alignment:

GTVBDAATTGTVTGHGDDHKVB
--ABTMGGTCACBGTGACCTAS

Original motif

Consensus sequence: GTVBDAATTGTVTGHGDDHKVB

Reverse complement motif

Consensus sequence: VVYDDDCHCAVACAATTDBVAC

Motif ID:	UP00527
Motif name:	Foxn4_secondary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	20
Similarity score:	0.0680441

Alignment:
VDWDARRGACGCGGWHGGAKHV
--ABTMGGTCACBGTGACCTAS

Original motif

Consensus sequence: VDWDARRGACGCGGWHGGAKHV

Reverse complement motif

Consensus sequence: VHYTCCDWCCGCGTCMMTHWHV

Motif ID:	UP00098
Motif name:	Rfx3_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:	20
Similarity score:	0.0685319

Alignment:

```
HHHHDVVGTTGCTAHGGDHBAHH
--ABTMGGTCACBGTGACCTAS-
```

Original motif

Consensus sequence: HDTBHHCCHTAGCAACVVDHHHH

Reverse complement motif

Consensus sequence: HHHHDVVGTTGCTAHGGDHBAHH

Motif ID:	UP00538

Motif name:	Gli1_v016060_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:	20
Similarity score:	0.0686444

Alignment:

```
BDDHVDKGCCACCCVCGCTDBVH
---STAGGTCACBGTGACCYABT
```

Original motif

Consensus sequence: HVBDAGCGBGGGTGGCRDBDDDB

Reverse complement motif

Consensus sequence: BDDHVDKGCCACCCVCGCTDBVH

Dataset #: 3 Motif ID: 112 Motif name: RELA

Original motif

Consensus sequence: GGGRATTTCC

Reverse complement motif

Consensus sequence: GGAAATKCCC

Best Matches for Motif ID 112 (Highest to Lowest)

Motif ID:	UP00424
Motif name:	Gm4881
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:	10
Similarity score:	0.0152117

Alignment:

```
VBBHAYTTCCGGTDDD
GGGRATTTCC------
```

Original motif

Consensus sequence: VBBHAYTTCCGGTDDD

Reverse complement motif

Consensus sequence: DHDACCGGAAMTHBVB

Motif ID: UP00416

Motif name:	Fli1
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:	10
Similarity score:	0.0156652

Alignment:

```
VBBVAYTTCCGGTDDH
GGGRATTTCC------
```

Original motif

Consensus sequence: VBBVAYTTCCGGTDDH

Reverse complement motif

Consensus sequence: DHDACCGGAAKTBBVV

Motif ID:	UP00422
Motif name:	Etv3
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:	10

Similarity score: 0.0163451

Alignment:
VBBHAYTTCCGGTHDH
GGGRATTTCC------

Original motif
Consensus sequence: VBBHAYTTCCGGTHDH

Reverse complement motif
Consensus sequence: DHHACCGGAAKTHBBB

Motif ID:	UP00415
Motif name:	Elk4
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:	10
Similarity score:	0.018032

Alignment:
VBBHRYTTCCGGTDDH
GGGRATTTCC------

Original motif
Consensus sequence: VBBHRYTTCCGGTDDH

Reverse complement motif
Consensus sequence: DHDACCGGAAKKHBVB

Motif ID:	UP00411
Motif name:	Erg
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:	10
Similarity score:	0.0206291

Alignment:

```
VBBVAYTTCCGGTDDB
GGGRATTTCC------
```

Original motif

Consensus sequence: VBBVAYTTCCGGTDDB

Reverse complement motif

Consensus sequence: BDDACCGGAAKTVBVB

Dataset #: 3 Motif ID: 113 Motif name: REST

Original motif

Consensus sequence: TTCAGCACCATGGACAGCKCC

Reverse complement motif

Consensus sequence: GGYGCTGTCCATGGTGCTGAA

Best Matches for Motif ID 113 (Highest to Lowest)

Motif ID:	UP00538
Motif name:	Gli1_v015681_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:	21
Similarity score:	0.0699178

Alignment:

```
BBBDVVRGACCACCCAVGABBAB
--TTCAGCACCATGGACAGCKCC
```

Original motif

Consensus sequence: BBBDVVRGACCACCCAVGABBAB

Reverse complement motif

Consensus sequence: BTBVTCVTGGGTGGTCMVVDVBB

Motif ID:	UP00540
Motif name:	Gli3_v015681_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:	21
Similarity score:	0.0734685

Alignment:

```
VMYDHDGMCCHCCKBGVVAAVH
GGYGCTGTCCATGGTGCTGAA-
```

Original motif

Consensus sequence: DVTTVVCVYGGHGGYCHHDMYB

Reverse complement motif

Consensus sequence: VMYDHDGMCCHCCKBGVVAAVH

Motif ID:	UP00540
Motif name:	Gli3_v016060_secondary

Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	21
Similarity score:	0.0740652

Alignment:

```
VYWVVHCRCCACMCACGAHSBHH
-TTCAGCACCATGGACAGCKCC-
```

Original motif

Consensus sequence: VYWVVHCRCCACMCACGAHSBHH

Reverse complement motif

Consensus sequence: HHBSHTCGTGRGTGGKGDBVWMV

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:	Backward
Position number:	1
Number of overlap:	21
Similarity score:	0.0750152

Alignment:
MHHHWHYTMCCHCCCACVAABVH
--TTCAGCACCATGGACAGCKCC

Original motif
Consensus sequence: MHHHWHYTMCCHCCCACVAABVH

Reverse complement motif
Consensus sequence: DVVTTVGTGGGHGGYAMHWHHHY

Motif ID:	UP00538
Motif name:	Gli1_v016060_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:	21
Similarity score:	0.0751449

Alignment:
BHCBCBCCGGGTGGTCYHVHDCH
GGYGCTGTCCATGGTGCTGAA--

Original motif
Consensus sequence: BHCBCBCCGGGTGGTCYHVHDCH

Reverse complement motif
Consensus sequence: HGDHVHKGACCACCCGGBGBGDB

Dataset #: 3 **Motif ID: 114** **Motif name: RUNX1**

Original motif

Consensus sequence: BBYTGTGGTTT

Reverse complement motif

Consensus sequence: AAACCACAKVB

Best Matches for Motif ID 114 (Highest to Lowest)

Motif ID:	UP00070
Motif name:	Gcm1_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	4
Number of overlap:	11
Similarity score:	0.0126586

Alignment:

HVVHACCCGCATVDHD
---AAACCACAKVB--

Original motif
Consensus sequence: HVVHACCCGCATVDHD

Reverse complement motif
Consensus sequence: DHDVATGCGGGTHVVH

Motif ID:	UP00073
Motif name:	Foxa2_secondary
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:	0.0139444

Alignment:
BVVTTTGTTATTDBB
--BBYTGTGGTTT--

Original motif
Consensus sequence: VVDAATAACAAAVVB

Reverse complement motif
Consensus sequence: BVVTTTGTTATTDBB

Motif ID:	UP00540
Motif name:	Gli3_v015681_secondary
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:	11
Similarity score:	0.0141619

Alignment:

```
DVTTVVCVYGGHGGYCHHDMYB
------BBYTGTGGTTT-----
```

Original motif

Consensus sequence: DVTTVVCVYGGHGGYCHHDMYB

Reverse complement motif

Consensus sequence: VMYDHDGMCCHCCKBGVVAAVH

Motif ID:	UP00047

Motif name:	Zbtb7b_secondary
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:	0.015194

Alignment:

```
BBDVHGGTGGTCBKDDB
--BBYTGTGGTTT----
```

Original motif

Consensus sequence: BDDRVGACCACCHBDVB

Reverse complement motif

Consensus sequence: BBDVHGGTGGTCBKDDB

Motif ID:	UP00025
Motif name:	Foxk1_secondary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	11

Similarity score: 0.0158291

Alignment:
HHHAYAAYAACAHHH
----AAACCACAKVB

Original motif
Consensus sequence: HHHAYAAYAACAHHH

Reverse complement motif
Consensus sequence: HDDTGTTKTTKTHHD

Dataset #: 3 Motif ID: 115 Motif name: RXRRAR_DR5

Original motif
Consensus sequence: RGKTCABVVRGAGGTCA

Reverse complement motif
Consensus sequence: TGACCTCKVVBTGAYCK

Best Matches for Motif ID 115 (Highest to Lowest)

Motif ID:	UP00540
Motif name:	Gli3_v015681_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:	17
Similarity score:	0.0585087

Alignment:

```
DVTTVVCVYGGHGGYCHHDMYB
RGKTCABVVRGAGGTCA-----
```

Original motif

Consensus sequence: DVTTVVCVYGGHGGYCHHDMYB

Reverse complement motif

Consensus sequence: VMYDHDGMCCHCCKBGVVAAVH

Motif ID:	UP00034
Motif name:	Sox7_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:	17
Similarity score:	0.0709955

Alignment:

```
GTVBDAATTGTVTGHGDDHKVB
-----RGKTCABVVRGAGGTCA
```

Original motif

Consensus sequence: GTVBDAATTGTVTGHGDDHKVB

Reverse complement motif

Consensus sequence: VVYDDDCHCAVACAATTDBVAC

Motif ID:	UP00538
Motif name:	Gli1_v015681_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	17
Similarity score:	0.075055

Alignment:

```
DVVTTVGTGGGHGGYAMHWHHHY
RGKTCABVVRGAGGTCA------
```

Original motif

Consensus sequence: MHHHWHYTMCCHCCCACVAABVH

Reverse complement motif

Consensus sequence: DVVTTVGTGGGHGGYAMHWHHHY

Motif ID:	UP00538
Motif name:	Gli1_v015681_primary
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:	17
Similarity score:	0.0758824

Alignment:

```
BBBDVVRGACCACCCAVGABBAB
------RGKTCABVVRGAGGTCA
```

Original motif

Consensus sequence: BBBDVVRGACCACCCAVGABBAB

Reverse complement motif

Consensus sequence: BTBVTCVTGGGTGGTCMVVDVBB

Motif ID:	UP00032
Motif name:	Gata3_secondary
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:	17
Similarity score:	0.0759953

Alignment:

```
HBHDVBWGATHBTATCRVBHHH
TGACCTCKVVBTGAYCK-----
```

Original motif

Consensus sequence: HBHDVBWGATHBTATCRVBHHH

Reverse complement motif

Consensus sequence: HHHBBMGATAVHATCWVVDHVH

Dataset #: 3 Motif ID: 116 Motif name: SP1

Original motif

Consensus sequence: CCCCKCCCCC

Reverse complement motif

Consensus sequence: GGGGGYGGGG

Best Matches for Motif ID 116 (Highest to Lowest)

Motif ID:	UP00021
Motif name:	Zfp281_primary

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

Alignment:

```
DBCCCCCCCCCCMYC
--CCCCKCCCCC---
```

Original motif

Consensus sequence: DBCCCCCCCCCCMYC

Reverse complement motif

Consensus sequence: GKRGGGGGGGGGBD

Motif ID:	UP00093
Motif name:	Klf7_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	10
Similarity score:	0.0303207

Alignment:
HBDRCCMCGCCCHHHD
----CCCCKCCCCC--

Original motif
Consensus sequence: HBDRCCMCGCCCHHHD

Reverse complement motif
Consensus sequence: DHHDGGGCGRGGKHBH

Motif ID:	UP00033
Motif name:	Zfp410_secondary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	5
Number of overlap:	10
Similarity score:	0.0323007

Alignment:
HHHHDGGGGCGGDBHDV
----GGGGGYGGGG---

Original motif
Consensus sequence: BHHBHCCGCCCCDHHHH

Reverse complement motif
Consensus sequence: HHHHDGGGGCGGDBHDV

Motif ID:	UP00099
Motif name:	Ascl2_secondary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	10
Similarity score:	0.0340973

Alignment:

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

Original motif

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:	Backward
Position number:	3
Number of overlap:	10
Similarity score:	0.0351051

Alignment:

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

Original motif

Consensus sequence: HBBBCCGCCCCWHHHV

Reverse complement motif

Consensus sequence: BHHHWGGGGCGGBBVH

Dataset #: 3 Motif ID: 117 Motif name: Spz1

Original motif

Consensus sequence: AGGGTAWCAGC

Reverse complement motif

Consensus sequence: GCTGWTACCCT

Best Matches for Motif ID 117 (Highest to Lowest)

Motif ID:	UP00388
Motif name:	Six6_2267.4
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	11
Similarity score:	0.00457598

Alignment:

```
AHWDHTGATACCCKATD
---GCTGWTACCCT---
```

Original motif

Consensus sequence: DATRGGGTATCAHDWHT

Reverse complement motif

Consensus sequence: AHWDHTGATACCCKATD

Motif ID:	UP00195
Motif name:	Six3
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:	0.00651969

Alignment:

```
DATRGGGTATCAHHWHT
---AGGGTAWCAGC---
```

Original motif

Consensus sequence: DATRGGGTATCAHHWHT

Reverse complement motif

Consensus sequence: AHWHDTGATACCCKATH

Motif ID:	UP00388
Motif name:	Six6_2267.5
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4

Number of overlap: 11
Similarity score: 0.0083787

Alignment:
AHWHWTGATACCCKDDD
---GCTGWTACCCT---

Original motif
Consensus sequence: DDDRGGGTATCAWHWHT

Reverse complement motif
Consensus sequence: AHWHWTGATACCCKDDD

Motif ID: UP00192
Motif name: Six1
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: 0.0113267

Alignment:
DHDRGGGTATCAHDHBT
---AGGGTAWCAGC---

Original motif

Reverse complement motif

Consensus sequence: DHDRGGGTATCAHDHBT

Consensus sequence: AVHDHTGATACCCMDHH

Motif ID:	UP00159
Motif name:	Six2
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:	0.0117598

Alignment:

```
DAKRGGGTATCACDWHT
---AGGGTAWCAGC---
```

Original motif

Consensus sequence: DAKRGGGTATCACDWHT

Reverse complement motif

Consensus sequence: AHWDGTGATACCCMRTD

Dataset #: 3 **Motif ID: 118** **Motif name: SRF**

Original motif

Consensus sequence: GCCCATATATGG

Reverse complement motif

Consensus sequence: CCATATATGGGC

Best Matches for Motif ID 118 (Highest to Lowest)

Motif ID:	UP00077
Motif name:	Srf_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	12
Similarity score:	0

Alignment:

```
THCCWTATAWGGHH
--CCATATATGGGC
```

Original motif

Consensus sequence: HHCCWTATAWGGHA

Reverse complement motif

Consensus sequence: THCCWTATAWGGHH

Motif ID:	UP00070
Motif name:	Gcm1_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:	12
Similarity score:	0.0318541

Alignment:

```
BYMBKCCCCTATDVBHD
----GCCCATATATGG-
```

Original motif

Consensus sequence: DDBVHATAGGGGRBRMB

Reverse complement motif

Consensus sequence: BYMBKCCCCTATDVBHD

Motif ID:	UP00080

Motif name:	Gata5_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:	12
Similarity score:	0.0503431

Alignment:

```
HDDDCTGATAAGRVDDD
---CCATATATGGGC--
```

Original motif

Consensus sequence: HDDDCTGATAAGRVDDD

Reverse complement motif

Consensus sequence: DDHBKCTTATCAGDDDH

Motif ID:	UP00133
Motif name:	Cdx2
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	12

Similarity score: 0.0528496

Alignment:
DVVGGYMATAAAAHKH
---GCCCATATATGG-

Original motif
Consensus sequence: DVVGGYMATAAAAHKH

Reverse complement motif
Consensus sequence: HRHTTTTATYMCCVBD

Motif ID: UP00213
Motif name: Hoxa9
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: 0.0533104

Alignment:
WDTAWTTTWATGKCCGD
---CCATATATGGGC--

Original motif
Consensus sequence: DCGGYCATWAAAWTADW

Reverse complement motif
Consensus sequence: WDTAWTTTWATGKCCGD

Dataset #: 3 Motif ID: 119 Motif name: Stat3

Original motif

Consensus sequence: TTCCAGGAAG

Reverse complement motif

Consensus sequence: CTTCCTGGAA

Best Matches for Motif ID 119 (Highest to Lowest)

Motif ID:	UP00043
Motif name:	Bcl6b_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:	10
Similarity score:	0

Alignment:

VHHATTCCTYGAAAGD
---CTTCCTGGAA---

Original motif
Consensus sequence: DCTTTCKAGGAATHHV

Reverse complement motif
Consensus sequence: VHHATTCCTYGAAAGD

Motif ID:	UP00413
Motif name:	Elf4
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	10
Similarity score:	0.00702689

Alignment:
DBBHACTTCCGGKWTH
-----CTTCCTGGAA-

Original motif
Consensus sequence: DBBHACTTCCGGKWTH

Reverse complement motif
Consensus sequence: HAWYCCGGAAGTHBBD

Motif ID:	UP00410
Motif name:	Elk1
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:	10
Similarity score:	0.00785398

Alignment:

```
DHBDACTTCCGGTVHVB
-----CTTCCTGGAA--
```

Original motif

Consensus sequence: VVHBACCGGAAGTDBHD

Reverse complement motif

Consensus sequence: DHBDACTTCCGGTVHVB

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:	Backward
Position number:	3
Number of overlap:	10
Similarity score:	0.00988664

Alignment:

```
BHHHACTTCCGGTHHBD
-----CTTCCTGGAA--
```

Original motif

Consensus sequence: HVHHACCGGAAGTDHHV

Reverse complement motif

Consensus sequence: BHHHACTTCCGGTHHBD

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:	10

Similarity score: 0.0105941

Alignment:
DBBHACTTCCGGDWDB
-----CTTCCTGGAA-

Original motif
Consensus sequence: DBBHACTTCCGGDWDB

Reverse complement motif
Consensus sequence: BDWDCCGGAAGTHBBD

Dataset #: 3 Motif ID: 120 Motif name: T

Original motif
Consensus sequence: CTAGGTGTGAA

Reverse complement motif
Consensus sequence: TTCACACCTAG

Best Matches for Motif ID 120 (Highest to Lowest)

Motif ID:	UP00068
Motif name:	Eomes_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:	11
Similarity score:	0

Alignment:

```
BVHDAGGTGTGAAAHHH
--CTAGGTGTGAA----
```

Original motif

Consensus sequence: BVHDAGGTGTGAAAHHH

Reverse complement motif

Consensus sequence: HHHTTTCACACCTDHBV

Motif ID:	UP00258
Motif name:	Tgif2
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	11
Similarity score:	0.0253823

Alignment:

VBWTTGACAGCTVBTT
---TTCACACCTAG--

Original motif
Consensus sequence: AABBAGCTGTCAAWVV

Reverse complement motif
Consensus sequence: VBWTTGACAGCTVBTT

Motif ID:	UP00199
Motif name:	Six4
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:	0.0278802

Alignment:
BBVHVGGTGTCATHDDT
--CTAGGTGTGAA----

Original motif
Consensus sequence: ADDHATGACACCBHBBV

Reverse complement motif
Consensus sequence: BBVHVGGTGTCATHDDT

Motif ID:	UP00186
Motif name:	Meis1
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:	0.0349057

Alignment:

```
WAVBASCTGTCAAWVH
--CTAGGTGTGAA---
```

Original motif

Consensus sequence: WAVBASCTGTCAAWVH

Reverse complement motif

Consensus sequence: DBWTTGACAGSTBVTW

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:	Backward
Position number:	3
Number of overlap:	11
Similarity score:	0.0381312

Alignment:

```
VBHHVCAGGTGCDVDHD
----CTAGGTGTGAA--
```

Original motif

Consensus sequence: VBHHVCAGGTGCDVDHD

Reverse complement motif

Consensus sequence: DHDBHGCACCTGBDDVB

Dataset #: 3 Motif ID: 121 Motif name: TAL1TCF3

Original motif

Consensus sequence: HVAMCATCTGKT

Reverse complement motif

Consensus sequence: ARCAGATGRTVD

Best Matches for Motif ID 121 (Highest to Lowest)

Motif ID:	UP00046
Motif name:	Tcfe2a_secondary
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:	12
Similarity score:	0.0117104

Alignment:

```
VBBDMYCATCTGVHHBH
--HVAMCATCTGKT---
```

Original motif

Consensus sequence: HVDDVCAGATGKYHBBV

Reverse complement motif

Consensus sequence: VBBDMYCATCTGVHHBH

Motif ID:	UP00036
Motif name:	Myf6_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	12
Similarity score:	0.0121214

Alignment:

```
VVDBAACAGBTGBYHB
HVAMCATCTGKT----
```

Original motif

Consensus sequence: VVDBAACAGBTGBYHB

Reverse complement motif

Consensus sequence: BDKVCABCTGTTBDBV

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:	1
Number of overlap:	12
Similarity score:	0.024819

Alignment:
HHVBABCACGTGSTHD
----ARCAGATGRTVD

Original motif
Consensus sequence: DDASCACGTGBTBVDD

Reverse complement motif
Consensus sequence: HHVBABCACGTGSTHD

Motif ID:	UP00099
Motif name:	Ascl2_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:	12
Similarity score:	0.025362

Alignment:
HHDVVGCAGCTGVBKVB
----ARCAGATGRTVD-

Original motif
Consensus sequence: BBYVVCAGCTGCBVHHD

Reverse complement motif
Consensus sequence: HHDVVGCAGCTGVBKVB

Motif ID:	UP00046
Motif name:	Tcfe2a_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:	12
Similarity score:	0.0322545

Alignment:

```
VBHHVCAGGTGCDVDHD
---ARCAGATGRTVD--
```

Original motif

Consensus sequence: VBHHVCAGGTGCDVDHD

Reverse complement motif

Consensus sequence: DHDBHGCACCTGBDDVB

Dataset #: 3 Motif ID: 122 Motif name: Tcfcp2l1

Original motif

Consensus sequence: CCAGYYHVADCCRG

Reverse complement motif

Consensus sequence: CKGGDTBDMMCTGG

Best Matches for Motif ID 122 (Highest to Lowest)

Motif ID:	UP00032
Motif name:	Gata3_secondary
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:	14
Similarity score:	0.0527249

Alignment:

```
HBHDVBWGATHBTATCRVBHHH
----CCAGYYHVADCCRG----
```

Original motif

Consensus sequence: HBHDVBWGATHBTATCRVBHHH

Reverse complement motif

Consensus sequence: HHHBBMGATAVHATCWVVDHVH

Motif ID:	UP00539
Motif name:	Gli2_v016060_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:	14
Similarity score:	0.0551691

Alignment:

```
RTHBSYCGCCMCMYVCGBTVDH
--------CCAGYYHVADCCRG
```

Original motif

Consensus sequence: RTHBSYCGCCMCMYVCGBTVDH

Reverse complement motif

Consensus sequence: HDBABCGBKRGYGGCGMSBHAK

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:	Backward
Position number:	1
Number of overlap:	14
Similarity score:	0.0560983

Alignment:

HHRCCBBWGGDCDB

CCAGYYHVADCCRG

Original motif

Consensus sequence: HHRCCBBWGGDCDB

Reverse complement motif

Consensus sequence: BDGHCCWBVGGKDH

Motif ID:	UP00013
Motif name:	Gabpa_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	14

Similarity score: 0.0566467

Alignment:
CYDBYWTCCSMHBVVH
CCAGYYHVADCCRG--

Original motif
Consensus sequence: CYDBYWTCCSMHBVVH

Reverse complement motif
Consensus sequence: DBVVDRSGGAWKVHKG

Motif ID:	UP00075
Motif name:	Sox15_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:	14
Similarity score:	0.0577636

Alignment:
BBVAATGDMATTHVA
-CCAGYYHVADCCRG

Original motif
Consensus sequence: BBVAATGDMATTHVA

Reverse complement motif
Consensus sequence: TVDAATYDCATTVVV

Dataset #: 3 Motif ID: 123 Motif name: TFAP2A

Original motif

Consensus sequence: GCCBBVRGS

Reverse complement motif

Consensus sequence: SCMVBBGGC

Best Matches for Motif ID 123 (Highest to Lowest)

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

Alignment:

HHKGCCYSRGGCWAD
---GCCBBVRGS---

Original motif
Consensus sequence: DTWGCCKSMGGCRHH

Reverse complement motif
Consensus sequence: HHKGCCYSRGGCWAD

Motif ID:	UP00010
Motif name:	Tcfap2b_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	9
Similarity score:	0.0150447

Alignment:
DYGCCYBARGGCAH
--GCCBBVRGS---

Original motif
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

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

Dataset #: 3 Motif ID: 124 Motif name: TLX1NFIC

Original motif
Consensus sequence: TGGCASBDHGCCAA

Reverse complement motif
Consensus sequence: TTGGCHDBSTGCCA

Best Matches for Motif ID 124 (Highest to Lowest)

Motif ID:	UP00010
Motif name:	Tcfap2b_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement

Direction:	Forward
Position number:	1
Number of overlap:	14
Similarity score:	0.0679595

Alignment:
HTGCCMTVKGGCMD
TTGGCHDBSTGCCA

Original motif
Consensus sequence: DYGCCYBARGGCAH

Reverse complement motif
Consensus sequence: HTGCCMTVKGGCMD

Motif ID:	UP00010
Motif name:	Tcfap2b_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	14
Similarity score:	0.0689546

Alignment:
HHKGCCYSRGGCWAD
-TGGCASBDHGCCAA

Original motif

Consensus sequence: DTWGCCKSMGGCRHH

Reverse complement motif

Consensus sequence: HHKGCCYSRGGCWAD

Motif ID:	UP00098
Motif name:	Rfx3_primary
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:	14
Similarity score:	0.0749445

Alignment:

```
HDTBHHCCHTAGCAACVVDHHHH
---------TGGCASBDHGCCAA
```

Original motif

Consensus sequence: HDTBHHCCHTAGCAACVVDHHHH

Reverse complement motif

Consensus sequence: HHHHDVVGTTGCTAHGGDHBAHH

Motif ID:	UP00087
Motif name:	Tcfap2c_secondary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	14
Similarity score:	0.0753915

Alignment:

```
HWGCCCTDGGGCDB
TTGGCHDBSTGCCA
```

Original motif

Consensus sequence: BHGCCCDAGGGCWD

Reverse complement motif

Consensus sequence: HWGCCCTDGGGCDB

Motif ID:	UP00540
Motif name:	Gli3_v015681_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: 14
Similarity score: 0.0779719

Alignment:
DVTTVVCVYGGHGGYCHHDMYB
--TTGGCHDBSTGCCA------

Original motif
Consensus sequence: DVTTVVCVYGGHGGYCHHDMYB

Reverse complement motif
Consensus sequence: VMYDHDGMCCHCCKBGVVAAVH

Dataset #: 3 Motif ID: 125 Motif name: TP53

Original motif
Consensus sequence: MSGGACATGYCCGGGCATGT

Reverse complement motif
Consensus sequence: ACATGCCCGGKCATGTCCSR

Best Matches for Motif ID 125 (Highest to Lowest)

Motif ID: UP00400
Motif name: Zif268

Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	20
Similarity score:	0.0503863

Alignment:

```
VVVDHHTGCGYGGGCGDHVHHTB
---ACATGCCCGGKCATGTCCSR
```

Original motif

Consensus sequence: BADHBDHCGCCCMCGCAHHDBBV

Reverse complement motif

Consensus sequence: VVVDHHTGCGYGGGCGDHVHHTB

Motif ID:	UP00050
Motif name:	Bhlhb2_secondary
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:	20
Similarity score:	0.0537648

Alignment:
ACHRBHDTCCACGTGYAHHBMHM
MSGGACATGYCCGGGCATGT---

Original motif
Consensus sequence: YDYBDHTMCACGTGGADDBMDGT

Reverse complement motif
Consensus sequence: ACHRBHDTCCACGTGYAHHBMHM

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:	Backward
Position number:	3
Number of overlap:	20
Similarity score:	0.0545224

Alignment:
DDRMHBACGCGYGCGTDGBBDB
MSGGACATGYCCGGGCATGT--

Original motif
Consensus sequence: DDRMHBACGCGYGCGTDGBBDB

Reverse complement motif
Consensus sequence: BDVBCDACGCKCGCGTBHRKHD

Motif ID:	UP00538
Motif name:	Gli1_v016060_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:	19
Similarity score:	0.554849

Alignment:

```
HGDHVHKGACCACCCGGBGBGDB-
-ACATGCCCGGKCATGTCCSR---
```

Original motif

Consensus sequence: BHCBCBCCGGGTGGTCYHVHDCH

Reverse complement motif

Consensus sequence: HGDHVHKGACCACCCGGBGBGDB

Motif ID:	UP00538
Motif name:	Gli1_v015681_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:	19
Similarity score:	0.5552

Alignment:

```
-BTBVTCVTGGGTGGTCMVVDVBB
---ACATGCCCGGKCATGTCCSR-
```

Original motif

Consensus sequence: BBBDVVRGACCACCCAVGABBAB

Reverse complement motif

Consensus sequence: BTBVTCVTGGGTGGTCMVVDVBB

Dataset #: 3 Motif ID: 126 Motif name: USF1

Original motif

Consensus sequence: CACGTGR

Reverse complement motif

Consensus sequence: MCACGTG

Best Matches for Motif ID 126 (Highest to Lowest)

Motif ID:	UP00060
Motif name:	Max_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:	7
Similarity score:	0

Alignment:

```
DDASCACGTGBTBVDD
----CACGTGR-----
```

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:	Reverse Complement

Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	9
Number of overlap:	7
Similarity score:	0.00626993

Alignment:

```
ACHRBHDTCCACGTGYAHHBMHM
--------MCACGTG--------
```

Original motif

Consensus sequence: YDYBDHTMCACGTGGADDBMDGT

Reverse complement motif

Consensus sequence: ACHRBHDTCCACGTGYAHHBMHM

Motif ID:	UP00050
Motif name:	Bhlhb2_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:	7
Similarity score:	0.00965663

Alignment:

DDHBHBSTCACGTGAHBBDHHM
--------CACGTGR-------

Original motif

Consensus sequence: RDHDBVDTCACGTGASBHVHDH

Reverse complement motif

Consensus sequence: DDHBHBSTCACGTGAHBBDHHM

Motif ID:	UP00046
Motif name:	Tcfe2a_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:	7
Similarity score:	0.0311072

Alignment:
VBHHVCAGGTGCDVDHD
----MCACGTG------

Original motif

Consensus sequence: VBHHVCAGGTGCDVDHD

Reverse complement motif

Consensus sequence: DHDBHGCACCTGBDDVB

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:	5
Number of overlap:	7
Similarity score:	0.0449596

Alignment:

```
BBGHCACGCGACDD
---MCACGTG----
```

Original motif

Consensus sequence: BBGHCACGCGACDD

Reverse complement motif

Consensus sequence: HDGTCGCGTGDCVB

Dataset #: 3 Motif ID: 127 Motif name: YY1

Original motif

Consensus sequence: RCCATB

Reverse complement motif

Consensus sequence: BATGGM

Best Matches for Motif ID 127 (Highest to Lowest)

Motif ID:	UP00033
Motif name:	Zfp410_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:	6
Similarity score:	0

Alignment:

```
DVDDATGGGATGKMDDV
--------BATGGM---
```

Original motif

Consensus sequence: DVDDATGGGATGKMDDV

Reverse complement motif

Consensus sequence: BDDYYCATCCCATDDBD

Motif ID:	UP00046
Motif name:	Tcfe2a_secondary
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:	6
Similarity score:	0.00378844

Alignment:

```
HVDDVCAGATGKYHBBV
-------BATGGM----
```

Original motif

Consensus sequence: HVDDVCAGATGKYHBBV

Reverse complement motif

Consensus sequence: VBBDMYCATCTGVHHBH

Motif ID:	UP00207

Motif name:	Hoxb9
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:	6
Similarity score:	0.0208704

Alignment:

```
VRRGCMATAAAAHHHD
---RCCATB-------
```

Original motif

Consensus sequence: VRRGCMATAAAAHHHD

Reverse complement motif

Consensus sequence: HDHHTTTTATRGCKMV

Motif ID:	UP00077
Motif name:	Srf_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	6

Similarity score: 0.023319

Alignment:
HHCCWTATAWGGHA
-------BATGGM-

Original motif
Consensus sequence: HHCCWTATAWGGHA

Reverse complement motif
Consensus sequence: THCCWTATAWGGHH

Motif ID:	UP00213
Motif name:	Hoxa9
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:	6
Similarity score:	0.0242984

Alignment:
DCGGYCATWAAAWTADW
---RCCATB--------

Original motif
Consensus sequence: DCGGYCATWAAAWTADW

Reverse complement motif
Consensus sequence: WDTAWTTTWATGKCCGD

Dataset #: 3 **Motif ID: 128** **Motif name: ZEB1**

Original motif

Consensus sequence: CACCTD

Reverse complement motif

Consensus sequence: HAGGTG

Best Matches for Motif ID 128 (Highest to Lowest)

Motif ID:	UP00068
Motif name:	Eomes_secondary
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:	6
Similarity score:	0

Alignment:

VVBVCKACACCTHVBV
-------CACCTD---

Original motif
Consensus sequence: VBVDAGGTGTYGVBBV

Reverse complement motif
Consensus sequence: VVBVCKACACCTHVBV

Motif ID:	UP00199
Motif name:	Six4
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:	0.00433068

Alignment:
BBVHVGGTGTCATHDDT
---HAGGTG--------

Original motif
Consensus sequence: ADDHATGACACCBHBBV

Reverse complement motif
Consensus sequence: BBVHVGGTGTCATHDDT

Motif ID:	UP00068
Motif name:	Eomes_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:	0.00524081

Alignment:

```
HHHTTTCACACCTDHBV
--------CACCTD---
```

Original motif

Consensus sequence: BVHDAGGTGTGAAAHHH

Reverse complement motif

Consensus sequence: HHHTTTCACACCTDHBV

Motif ID: UP00046

Motif name:	Tcfe2a_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:	0.00911301

Alignment:

```
VBHHVCAGGTGCDVDHD
-----HAGGTG------
```

Original motif

Consensus sequence: VBHHVCAGGTGCDVDHD

Reverse complement motif

Consensus sequence: DHDBHGCACCTGBDDVB

Motif ID:	UP00047
Motif name:	Zbtb7b_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:	6

Similarity score: 0.0233556

Alignment:
BDDRVGACCACCHBDVB
--------CACCTD---

Original motif
Consensus sequence: BDDRVGACCACCHBDVB

Reverse complement motif
Consensus sequence: BBDVHGGTGGTCBKDDB

Dataset #: 3 Motif ID: 129 Motif name: Zfp423

Original motif
Consensus sequence: GSMMCCYARGGKKKC

Reverse complement motif
Consensus sequence: GYRYCCMTKGGYRSC

Best Matches for Motif ID 129 (Highest to Lowest)

Motif ID:	UP00057
Motif name:	Zic2_primary
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:	15
Similarity score:	0.0178077

Alignment:

BMCCCCCGGGGGGGB

GSMMCCYARGGKKKC

Original motif

Consensus sequence: BMCCCCCGGGGGGGB

Reverse complement motif

Consensus sequence: VCCCCCCCGGGGGRB

Motif ID:	UP00006
Motif name:	Zic3_primary
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:	15
Similarity score:	0.0213948

Alignment:

BMCCCCCGGGGGGGB

GSMMCCYARGGKKKC

Original motif

Consensus sequence: BMCCCCCGGGGGGGB

Reverse complement motif

Consensus sequence: VCCCCCCCGGGGGRB

Motif ID:	UP00538
Motif name:	Gli1_v016060_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:	15
Similarity score:	0.0255241

Alignment:

```
BDDHVDKGCCACCCVCGCTDBVH
-------GSMMCCYARGGKKKC-
```

Original motif

Consensus sequence: HVBDAGCGBGGGTGGCRDBDDDB

Reverse complement motif

Consensus sequence: BDDHVDKGCCACCCVCGCTDBVH

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:	1
Number of overlap:	15
Similarity score:	0.0261399

Alignment:

```
WHHSCCYSRGGSDAD
GSMMCCYARGGKKKC
```

Original motif

Consensus sequence: WHHSCCYSRGGSDAD

Reverse complement motif

Consensus sequence: DTHSCCKSMGGSHHW

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:	Backward

Position number:	1
Number of overlap:	15
Similarity score:	0.0266201

Alignment:
WDHSCCYSRGGSRAD
GSMMCCYARGGKKKC

Original motif
Consensus sequence: WDHSCCYSRGGSRAD

Reverse complement motif
Consensus sequence: DTMSCCKSMGGSHDW

Dataset #: 3 Motif ID: 130 Motif name: Zfx

Original motif
Consensus sequence: BBVGCCBVGGCCTV

Reverse complement motif
Consensus sequence: VAGGCCBBGGCVBB

Best Matches for Motif ID 130 (Highest to Lowest)

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:	1
Number of overlap:	14
Similarity score:	0.0596136

Alignment:

```
HHRCCBBWGGDCDB
BBVGCCBVGGCCTV
```

Original motif

Consensus sequence: HHRCCBBWGGDCDB

Reverse complement motif

Consensus sequence: BDGHCCWBVGGKDH

Motif ID:	UP00540
Motif name:	Gli3_v015681_primary
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:	14
Similarity score:	0.0603516

Alignment:
ABBBBVVRGACCACCCACRDBBM
BBVGCCBVGGCCTV---------

Original motif
Consensus sequence: ABBBBVVRGACCACCCACRDBBM

Reverse complement motif
Consensus sequence: YBVDMGTGGGTGGTCKVVBVBBT

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:	4
Number of overlap:	14
Similarity score:	0.0604694

Alignment:
BDHHMCGCCCCCTHVBB
---VAGGCCBBGGCVBB

Original motif
Consensus sequence: BDHHMCGCCCCCTHVBB

Reverse complement motif
Consensus sequence: BVVHAGGGGGCGRDHHB

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:	14
Similarity score:	0.0606067

Alignment:

```
HBDRCCMCGCCCHHHD
BBVGCCBVGGCCTV--
```

Original motif

Consensus sequence: HBDRCCMCGCCCHHHD

Reverse complement motif

Consensus sequence: DHHDGGGCGRGGKHBH

Motif ID: UP00539

Motif name:	Gli2_v015681_secondary
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:	14
Similarity score:	0.0606878

Alignment:

```
HVGVSAGGAGGGTCYHHHHYVH
--------VAGGCCBBGGCVBB
```

Original motif

Consensus sequence: HVGVSAGGAGGGTCYHHHHYVH

Reverse complement motif

Consensus sequence: DVMHHDHKGACCCTCCTSVCBH

Dataset #: 3 Motif ID: 131 Motif name: znf143

Original motif

Consensus sequence: BAHYTCCCAKMATGCMWYGC

Reverse complement motif

Consensus sequence: GCMWRGCATYRTGGGAMHTB

Best Matches for Motif ID 131 (Highest to Lowest)

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:	Backward
Position number:	1
Number of overlap:	20
Similarity score:	0.0673743

Alignment:

```
MHHHWHYTMCCHCCCACVAABVH
---BAHYTCCCAKMATGCMWYGC
```

Original motif

Consensus sequence: MHHHWHYTMCCHCCCACVAABVH

Reverse complement motif

Consensus sequence: DVVTTVGTGGGHGGYAMHWHHHY

Motif ID:	UP00540

Motif name:	Gli3_v015681_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:	20
Similarity score:	0.0687663

Alignment:

```
DVTTVVCVYGGHGGYCHHDMYB
GCMWRGCATYRTGGGAMHTB--
```

Original motif

Consensus sequence: DVTTVVCVYGGHGGYCHHDMYB

Reverse complement motif

Consensus sequence: VMYDHDGMCCHCCKBGVVAAVH

Motif ID:	UP00538
Motif name:	Gli1_v016060_secondary
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:	20

Similarity score: 0.0697414

Alignment:
HVBDAGCGBGGGTGGCRDBDDDB
-GCMWRGCATYRTGGGAMHTB--

Original motif
Consensus sequence: HVBDAGCGBGGGTGGCRDBDDDB

Reverse complement motif
Consensus sequence: BDDHVDKGCCACCCVCGCTDBVH

Motif ID: UP00539
Motif name: Gli2_v016060_primary
Species: Mus musculus
Matching format of first motif: Reverse Complement
Matching format of second motif: Reverse Complement
Direction: Forward
Position number: 1
Number of overlap: 20
Similarity score: 0.0698272

Alignment:
DBCDWHCTGGGTGGTCMDHBBAH
GCMWRGCATYRTGGGAMHTB---

Original motif
Consensus sequence: DTVBDDRGACCACCCAGDWDGBH

Reverse complement motif
Consensus sequence: DBCDWHCTGGGTGGTCMDHBBAH

Motif ID:	UP00034
Motif name:	Sox7_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	20
Similarity score:	0.072957

Alignment:

```
HHBDHDDAACAATDRHHHHHBW
-GCMWRGCATYRTGGGAMHTB-
```

Original motif

Consensus sequence: HHBDHDDAACAATDRHHHHHBW

Reverse complement motif

Consensus sequence: WBHHHHHMDATTGTTHDHDVHH

Dataset #: 3 Motif ID: 132 Motif name: ZNF354C

Original motif

Consensus sequence: MTCCAC

Reverse complement motif

Consensus sequence: GTGGAY

Best Matches for Motif ID 132 (Highest to Lowest)

Motif ID:	UP00249
Motif name:	Nkx2-5
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:	6
Similarity score:	0

Alignment:

```
HDADCCACTTRAAWTT
--MTCCAC--------
```

Original motif

Consensus sequence: HDADCCACTTRAAWTT

Reverse complement motif

Consensus sequence: AAWTTMAAGTGGHTDH

Motif ID:	UP00050
Motif name:	Bhlhb2_secondary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	12
Number of overlap:	6
Similarity score:	0.00247916

Alignment:

```
YDYBDHTMCACGTGGADDBMDGT
-----------GTGGAY------
```

Original motif

Consensus sequence: YDYBDHTMCACGTGGADDBMDGT

Reverse complement motif

Consensus sequence: ACHRBHDTCCACGTGYAHHBMHM

Motif ID:	UP00147

Motif name:	Nkx2-6
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:	6
Similarity score:	0.00337038

Alignment:

```
DDADCCACTTAAVHTT
--MTCCAC--------
```

Original motif

Consensus sequence: DDADCCACTTAAVHTT

Reverse complement motif

Consensus sequence: AAHVTTAAGTGGHTDD

Motif ID:	UP00228
Motif name:	Bapx1
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: 0.00628534

Alignment:
VHHAACCACTTAAVVAH
---MTCCAC--------

Original motif
Consensus sequence: VHHAACCACTTAAVVAH

Reverse complement motif
Consensus sequence: DTBVTTAAGTGGTTHHV

Motif ID: UP00231
Motif name: Nkx2-2
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: 0.0113442

Alignment:
HDVRCCACTTGARADBD
--MTCCAC---------

Original motif
Consensus sequence: HDVRCCACTTGARADBD

Reverse complement motif
Consensus sequence: DVDTKTCAAGTGGKBDH

Dataset #: 4 Motif ID: 133 Motif name: shAGrGGGCAgy

Original motif

Consensus sequence: SHAGRGGGCABH

Reverse complement motif

Consensus sequence: DBTGCCCKCTDS

Best Matches for Motif ID 133 (Highest to Lowest)

Motif ID:	UP00079
Motif name:	Esrra_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:	12
Similarity score:	0

Alignment:

VKBBAGGGGTCAHDBBH
--SHAGRGGGCABH---

Original motif

Consensus sequence: VKBBAGGGGTCAHDBBH

Reverse complement motif

Consensus sequence: DBBHHTGACCCCTBBYV

Motif ID:	UP00009
Motif name:	Nr2f2_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:	0.0084293

Alignment:
DHBHAAAGGTCAHVHB
--SHAGRGGGCABH--

Original motif

Consensus sequence: DHBHAAAGGTCAHVHB

Reverse complement motif

Consensus sequence: BHVDTGACCTTTDVDD

Motif ID:	UP00048
Motif name:	Rara
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:	12
Similarity score:	0.00844318

Alignment:

```
DHBHAAAGGTCACVHD
--SHAGRGGGCABH--
```

Original motif

Consensus sequence: DHBHAAAGGTCACVHD

Reverse complement motif

Consensus sequence: HHVGTGACCTTTDVDD

Motif ID:	UP00002

Motif name:	Sp4_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:	0.00952396

Alignment:

```
BVVHAGGGGGCGRDHHB
--SHAGRGGGCABH---
```

Original motif

Consensus sequence: BDHHMCGCCCCCTHVBB

Reverse complement motif

Consensus sequence: BVVHAGGGGGCGRDHHB

Motif ID:	UP00066
Motif name:	Hnf4a_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:	12

Similarity score: 0.011648

Alignment:
BDBVMGGGGTCAABHDV
--SHAGRGGGCABH---

Original motif
Consensus sequence: BDBVMGGGGTCAABHDV

Reverse complement motif
Consensus sequence: BHHVTTGACCCCYVVDB

Dataset #: 4 Motif ID: 134 Motif name: ssCGwGCGss

Original motif
Consensus sequence: BSCGWGCGBV

Reverse complement motif
Consensus sequence: VBCGCWCGSB

Best Matches for Motif ID 134 (Highest to Lowest)

Motif ID:	UP00065
Motif name:	Zfp161_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

Alignment:

```
DDGCGCGCGCRCHYRD
---BSCGWGCGBV---
```

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:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	8
Number of overlap:	10
Similarity score:	0.00413791

Alignment:

DDRMHBACGCGYGCGTDGBBDB
-------BSCGWGCGBV-----

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:	7
Number of overlap:	10
Similarity score:	0.013065

Alignment:
VVVDHHTGCGYGGGCGDHVHHTB
------BSCGWGCGBV-------

Original motif

Consensus sequence: BADHBDHCGCCCMCGCAHHDBBV

Reverse complement motif

Consensus sequence: VVVDHHTGCGYGGGCGDHVHHTB

Motif ID:	UP00526
Motif name:	Foxn1_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:	10
Similarity score:	0.0147607

Alignment:

```
HDWHMHGACGCGCGTRBVVBHW
------BSCGWGCGBV------
```

Original motif

Consensus sequence: WHVBVVMACGCGCGTCDYHWDH

Reverse complement motif

Consensus sequence: HDWHMHGACGCGCGTRBVVBHW

Motif ID:	UP00001

Motif name:	E2F2_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:	0.0160468

Alignment:

```
VHDARGGCGCGCVHH
---BSCGWGCGBV--
```

Original motif

Consensus sequence: VHDARGGCGCGCVHH

Reverse complement motif

Consensus sequence: HHVGCGCGCCKTDHB

Dataset #: 4 Motif ID: 135 Motif name: ssCGGCCGss

Original motif

Consensus sequence: BSCGGCCGSV

Reverse complement motif

Consensus sequence: VSCGGCCGSB

Best Matches for Motif ID 135 (Highest to Lowest)

Motif ID:	UP00099
Motif name:	Ascl2_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:	10
Similarity score:	0.013915

Alignment:

```
HHDVVGCAGCTGVBKVB
----VSCGGCCGSB---
```

Original motif

Consensus sequence: BBYVVCAGCTGCBVHHD

Reverse complement motif

Consensus sequence: HHDVVGCAGCTGVBKVB

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:	4
Number of overlap:	10
Similarity score:	0.0179182

Alignment:

```
BHBHDTGGCGGGGBDHD
---BSCGGCCGSV----
```

Original motif

Consensus sequence: DHHBCCCCGCCAHHBHB

Reverse complement motif

Consensus sequence: BHBHDTGGCGGGGBDHD

Motif ID:	UP00036
Motif name:	Myf6_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3

Number of overlap: 10
Similarity score: 0.0197811

Alignment:
VVVRACAGVCBCDCC
---BSCGGCCGSV--

Original motif
Consensus sequence: VVVRACAGVCBCDCC

Reverse complement motif
Consensus sequence: GGDGBGVCTGTKVVB

Motif ID: UP00033
Motif name: Zfp410_secondary
Species: Mus musculus
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 4
Number of overlap: 10
Similarity score: 0.0198393

Alignment:
BHHBHCCGCCCCDHHHH
---BSCGGCCGSV----

Original motif

Reverse complement motif

Consensus sequence: BHHBHCCGCCCCDHHHH

Consensus sequence: HHHHDGGGGCGGDBHDV

Motif ID:	UP00094
Motif name:	Zfp128_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	10
Similarity score:	0.0205643

Alignment:

```
DHVGGGTACGCCRDHDV
--BSCGGCCGSV-----
```

Original motif

Consensus sequence: BHHDKGGCGTACCCBHD

Reverse complement motif

Consensus sequence: DHVGGGTACGCCRDHDV

Dataset #: 4 **Motif ID: 136** **Motif name: dwCAGAAGwh**

Original motif

Consensus sequence: DHCAGAAGDH

Reverse complement motif

Consensus sequence: HDCTTCTGHD

Best Matches for Motif ID 136 (Highest to Lowest)

Motif ID:	UP00046
Motif name:	Tcfe2a_secondary
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:	10
Similarity score:	0

Alignment:

```
HVDDVCAGATGKYHBBV
---DHCAGAAGDH----
```

Original motif

Consensus sequence: HVDDVCAGATGKYHBBV

Reverse complement motif

Consensus sequence: VBBDMYCATCTGVHHBH

Motif ID:	UP00404
Motif name:	Elf2
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:	10
Similarity score:	0.00342014

Alignment:

```
BDWDCCGGAAGTHBBD
---DHCAGAAGDH---
```

Original motif

Consensus sequence: DBBHACTTCCGGDWDB

Reverse complement motif

Consensus sequence: BDWDCCGGAAGTHBBD

Motif ID:	UP00052

Motif name:	Osr2_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	10
Similarity score:	0.00452111

Alignment:

```
HHHHGCTACKGTHVHH
---HDCTTCTGHD---
```

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:	Forward
Position number:	4
Number of overlap:	10

Similarity score: 0.00483126

Alignment:
DHBHGCTACKGTHDHH
---HDCTTCTGHD---

Original motif
Consensus sequence: HHDHACRGTAGCHVHD

Reverse complement motif
Consensus sequence: DHBHGCTACKGTHDHH

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: Backward
Position number: 5
Number of overlap: 10
Similarity score: 0.00574168

Alignment:
DDACTTCCGGBTHBB
-HDCTTCTGHD----

Original motif
Consensus sequence: VBDABCCGGAAGTDD

Reverse complement motif
Consensus sequence: DDACTTCCGGBTHBB

Dataset #: 4 **Motif ID: 137** **Motif name: rgCGCCmyCTgs**

Original motif

Consensus sequence: VGCGCCCYCTDS

Reverse complement motif

Consensus sequence: SHAGKGGGCGCB

Best Matches for Motif ID 137 (Highest to Lowest)

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:	Backward
Position number:	4
Number of overlap:	12
Similarity score:	0

Alignment:

BVVHAGGGGGCGRDHHB
--SHAGKGGGCGCB---

Original motif

Consensus sequence: BDHHMCGCCCCCTHVBB

Reverse complement motif

Consensus sequence: BVVHAGGGGGCGRDHHB

Motif ID:	UP00068
Motif name:	Eomes_secondary
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:	12
Similarity score:	0.0223356

Alignment:
VVBVCKACACCTHVBV
--VGCGCCCYCTDS--

Original motif

Consensus sequence: VBVDAGGTGTYGVBBV

Reverse complement motif

Consensus sequence: VVBVCKACACCTHVBV

Motif ID:	UP00003
Motif name:	E2F3_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	12
Similarity score:	0.0255543

Alignment:

```
WHSGCGCGCCHTDHB
--VGCGCCCYCTDS-
```

Original motif

Consensus sequence: VHDADGGCGCGCSHW

Reverse complement motif

Consensus sequence: WHSGCGCGCCHTDHB

Motif ID:	UP00079

Motif name:	Esrra_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:	12
Similarity score:	0.027032

Alignment:

```
VKBBAGGGGTCAHDBBH
--SHAGKGGGCGCB---
```

Original motif

Consensus sequence: VKBBAGGGGTCAHDBBH

Reverse complement motif

Consensus sequence: DBBHHTGACCCCTBBYV

Motif ID:	UP00001
Motif name:	E2F2_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:	12

Similarity score: 0.0274822

Alignment:
VHDARGGCGCGCVHH
-SHAGKGGGCGCB--

Original motif
Consensus sequence: VHDARGGCGCGCVHH

Reverse complement motif
Consensus sequence: HHVGCGCGCCKTDHB

Dataset #: 4 Motif ID: 138 Motif name: grCCACyAGAkG

Original motif
Consensus sequence: DDCCACYAGAKG

Reverse complement motif
Consensus sequence: CYTCTMGTGGHH

Best Matches for Motif ID 138 (Highest to Lowest)

Motif ID:	UP00165
Motif name:	Titf1
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

Alignment:

```
AAHYTCAAGTGGBTBV
--CYTCTMGTGGHH--
```

Original motif

Consensus sequence: BVABCCACTTGAMHTT

Reverse complement motif

Consensus sequence: AAHYTCAAGTGGBTBV

Motif ID:	UP00231
Motif name:	Nkx2-2
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:	0.00409843

Alignment:

HDVRCCACTTGARADBD
--DDCCACYAGAKG---

Original motif

Consensus sequence: HDVRCCACTTGARADBD

Reverse complement motif

Consensus sequence: DVDTKTCAAGTGGKBDH

Motif ID:	UP00107
Motif name:	Nkx2-4
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:	0.00589166

Alignment:
AAWYTMAAGTGGVTDH
--CYTCTMGTGGHH--

Original motif

Consensus sequence: HDAVCCACTTRAMWTT

Reverse complement motif

Consensus sequence: AAWYTMAAGTGGVTDH

Motif ID:	UP00249
Motif name:	Nkx2-5
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:	0.00660985

Alignment:

```
AAWTTMAAGTGGHTDH
--CYTCTMGTGGHH--
```

Original motif

Consensus sequence: HDADCCACTTRAAWTT

Reverse complement motif

Consensus sequence: AAWTTMAAGTGGHTDH

Motif ID:	UP00050

Motif name:	Bhlhb2_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:	12
Similarity score:	0.00783877

Alignment:

```
DDHBHBSTCACGTGAHBBDHHM
-----CYTCTMGTGGHH-----
```

Original motif

Consensus sequence: RDHDBVDTCACGTGASBHVHDH

Reverse complement motif

Consensus sequence: DDHBHBSTCACGTGAHBBDHHM

Dataset #: 4 Motif ID: 139 Motif name: mkCTyTTCsg

Original motif

Consensus sequence: HBCTTTTCBD

Reverse complement motif

Consensus sequence: HBGAAAAGBD

Best Matches for Motif ID 139 (Highest to Lowest)

Motif ID:	UP00100
Motif name:	Gata6_primary
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:	10
Similarity score:	0

Alignment:

```
DHDVDWGATAAGADDHV
----HBGAAAAGBD---
```

Original motif

Consensus sequence: DHDVDWGATAAGADDHV

Reverse complement motif

Consensus sequence: VHDDTCTTATCWHBDHD

Motif ID:	UP00080
Motif name:	Gata5_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:	10
Similarity score:	0.000223307

Alignment:

```
DDHBKCTTATCAGDDDH
---HBCTTTTCBD----
```

Original motif

Consensus sequence: HDDDCTGATAAGRVDDD

Reverse complement motif

Consensus sequence: DDHBKCTTATCAGDDDH

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:	7

Number of overlap: 10
Similarity score: 0.00555961

Alignment:
BDHDDADAGATAAGADHBDHVD
------HBGAAAAGBD------

Original motif
Consensus sequence: BDHDDADAGATAAGADHBDHVD

Reverse complement motif
Consensus sequence: HBHDVHDTCTTATCTHTDDHDV

Motif ID: UP00018
Motif name: Irf4_primary
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: 10
Similarity score: 0.0104391

Alignment:
TBDKGTTTCGMTDHV
-HBCTTTTCBD----

Original motif

Reverse complement motif

Consensus sequence: VDDAYCGAAACYDVA

Consensus sequence: TBDKGTTTCGMTDHV

Motif ID:	UP00422
Motif name:	Etv3
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	10
Similarity score:	0.012889

Alignment:

```
VBBHAYTTCCGGTHDH
-HBCTTTTCBD-----
```

Original motif

Consensus sequence: VBBHAYTTCCGGTHDH

Reverse complement motif

Consensus sequence: DHHACCGGAAKTHBBB

Dataset #: 4 **Motif ID: 140** **Motif name: vkCKCTkCGk**

Original motif

Consensus sequence: VDCTCTKCGB

Reverse complement motif

Consensus sequence: BCGYAGAGDV

Best Matches for Motif ID 140 (Highest to Lowest)

Motif ID:	UP00031
Motif name:	Zbtb3_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:	10
Similarity score:	0

Alignment:

```
DDBBBCACTGCABTBBB
---VDCTCTKCGB----
```

Original motif

Consensus sequence: DDBBBCACTGCABTBBB

Reverse complement motif

Consensus sequence: BBBAVTGCAGTGBBVDD

Motif ID:	UP00065
Motif name:	Zfp161_secondary
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:	10
Similarity score:	0.00813165

Alignment:

```
VVGCVMTGCGCGKC
-VDCTCTKCGB---
```

Original motif

Consensus sequence: GYCGCGCARBGCVB

Reverse complement motif

Consensus sequence: VVGCVMTGCGCGKC

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:	2
Number of overlap:	10
Similarity score:	0.0158498

Alignment:

```
HHDCVCAGCAKGVVD
-VDCTCTKCGB----
```

Original motif

Consensus sequence: HHDCVCAGCAKGVVD

Reverse complement motif

Consensus sequence: DVBCYTGCTGBGDDD

Motif ID:	UP00102
Motif name:	Zic1_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	10

Similarity score: 0.0176179

Alignment:
BHDCVCAGCAGGHVD
-VDCTCTKCGB----

Original motif
Consensus sequence: BHDCVCAGCAGGHVD

Reverse complement motif
Consensus sequence: DVHCCTGCTGBGDDB

Motif ID: UP00006
Motif name: Zic3_secondary
Species: Mus musculus
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Forward
Position number: 2
Number of overlap: 10
Similarity score: 0.0202331

Alignment:
DDDCACAGCAKGHVD
-VDCTCTKCGB----

Original motif
Consensus sequence: DDDCACAGCAKGHVD

Reverse complement motif
Consensus sequence: DVHCYTGCTGTGHDH

Dataset #: 4 Motif ID: 141 Motif name: raCAAAACam

Original motif

Consensus sequence: DACAAAACAH

Reverse complement motif

Consensus sequence: HTGTTTTGTD

Best Matches for Motif ID 141 (Highest to Lowest)

Motif ID:	UP00039
Motif name:	Foxj3_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:	10
Similarity score:	0

Alignment:

DVHWDTGTTWTGDTBDH
----HTGTTTTGTD---

Original motif

Consensus sequence: HDBAHCAWAACADWDVD

Reverse complement motif

Consensus sequence: DVHWDTGTTWTGDTBDH

Motif ID:	UP00040
Motif name:	Irf5_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:	10
Similarity score:	0.00529846

Alignment:
BDKGTTTCGKTWDDD
-HTGTTTTGTD----

Original motif

Consensus sequence: DDDWAYCGAAACYDV

Reverse complement motif

Consensus sequence: BDKGTTTCGKTWDDD

Motif ID:	UP00018
Motif name:	Irf4_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:	10
Similarity score:	0.010321

Alignment:

```
TBDKGTTTCGMTDHV
--HTGTTTTGTD---
```

Original motif

Consensus sequence: VDDAYCGAAACYDVA

Reverse complement motif

Consensus sequence: TBDKGTTTCGMTDHV

Motif ID:	UP00061

Motif name:	Foxl1_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:	0.0116411

Alignment:

```
HDTYTTGTTWTKDDDT
----HTGTTTTGTD--
```

Original motif

Consensus sequence: ADDDYAWAACAAMAHH

Reverse complement motif

Consensus sequence: HDTYTTGTTWTKDDDT

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:	Forward
Position number:	5
Number of overlap:	10

Similarity score: 0.0133918

Alignment:
DHDBTKGTTTCGHTHDD
----HTGTTTTGTD---

Original motif
Consensus sequence: HDDAHCGAAACYAVDDD

Reverse complement motif
Consensus sequence: DHDBTKGTTTCGHTHDD

Dataset #: 4 Motif ID: 142 Motif name: ctCTTAACyw

Original motif
Consensus sequence: HHCTTAACHD

Reverse complement motif
Consensus sequence: DDGTTAAGHD

Best Matches for Motif ID 142 (Highest to Lowest)

Motif ID:	UP00100
Motif name:	Gata6_primary
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:	10
Similarity score:	0

Alignment:

```
DHDVDWGATAAGADDHV
----DDGTTAAGHD---
```

Original motif

Consensus sequence: DHDVDWGATAAGADDHV

Reverse complement motif

Consensus sequence: VHDDTCTTATCWHBDHD

Motif ID:	UP00390
Motif name:	Tcf1
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:	0.00372807

Alignment:

HSKBVGTTAACTAADDB
---HHCTTAACHD----

Original motif

Consensus sequence: HSKBVGTTAACTAADDB

Reverse complement motif

Consensus sequence: VDDTTAGTTAACBVRSD

Motif ID:	UP00222
Motif name:	Tcf2
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:	10
Similarity score:	0.00564182

Alignment:
DBBBGTTAACTAGBHBT
--HHCTTAACHD-----

Original motif

Consensus sequence: DBBBGTTAACTAGBHBT

Reverse complement motif

Consensus sequence: ABDBCTAGTTAACVBBD

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:	7
Number of overlap:	10
Similarity score:	0.00635188

Alignment:

```
BDHDDADAGATAAGADHBDHVD
------DDGTTAAGHD------
```

Original motif

Consensus sequence: BDHDDADAGATAAGADHBDHVD

Reverse complement motif

Consensus sequence: HBHDVHDTCTTATCTHTDDHDV

Motif ID:	UP00012

Motif name:	Bbx_secondary
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:	10
Similarity score:	0.00788123

Alignment:

```
HVWHBGTTAACABHBDV
---DDGTTAAGHD----
```

Original motif

Consensus sequence: HVWHBGTTAACABHBDV

Reverse complement motif

Consensus sequence: VHVHBTGTTAACVHWVH

Dataset #: 4 Motif ID: 143 Motif name: AgmAGAGGGCrscAGak

Original motif

Consensus sequence: AGMAGAGGGCASCAGAK

Reverse complement motif

Consensus sequence: RTCTGSTGCCCTCTYCT

Best Matches for Motif ID 143 (Highest to Lowest)

Motif ID:	UP00400
Motif name:	Zif268
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:	17
Similarity score:	0.0294896

Alignment:

```
BADHBDHCGCCCMCGCAHHDBBV
-RTCTGSTGCCCTCTYCT-----
```

Original motif

Consensus sequence: BADHBDHCGCCCMCGCAHHDBBV

Reverse complement motif

Consensus sequence: VVVDHHTGCGYGGGCGDHVHHTB

Motif ID:	UP00539
Motif name:	Gli2_v015681_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	17
Similarity score:	0.0339644

Alignment:

```
HVGVSAGGAGGGTCYHHHHYVH
---AGMAGAGGGCASCAGAK--
```

Original motif

Consensus sequence: HVGVSAGGAGGGTCYHHHHYVH

Reverse complement motif

Consensus sequence: DVMHHDHKGACCCTCCTSVCBH

Motif ID:	UP00538
Motif name:	Gli1_v016060_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: 17
Similarity score: 0.0353444

Alignment:
HVBDAGCGBGGGTGGCRDBDDDB
------AGMAGAGGGCASCAGAK

Original motif
Consensus sequence: HVBDAGCGBGGGTGGCRDBDDDB

Reverse complement motif
Consensus sequence: BDDHVDKGCCACCCVCGCTDBVH

Motif ID: UP00527
Motif name: Foxn4_primary
Species: Mus musculus
Matching format of first motif: Original Motif
Matching format of second motif: Reverse Complement
Direction: Backward
Position number: 3
Number of overlap: 17
Similarity score: 0.0356077

Alignment:
TCDAMVBGACGCMAKDDDVBBD
---AGMAGAGGGCASCAGAK--

Original motif

Reverse complement motif

Consensus sequence: DBBVDDDRTRGCGTCBBYTHGA

Consensus sequence: TCDAMVBGACGCMAKDDDVBBD

Motif ID:	UP00088
Motif name:	Plagl1_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:	17
Similarity score:	0.0356806

Alignment:

```
DBHGGGGGGTACCHHHD
AGMAGAGGGCASCAGAK
```

Original motif

Consensus sequence: DBHGGGGGGTACCHHHD

Reverse complement motif

Consensus sequence: DHDDGGTACCCCCCHBH

Dataset #: 4 **Motif ID: 144** **Motif name: ctCTrsyGCCmCCTast**

Original motif

Consensus sequence: HDCTGSYGCCMCCTAST

Reverse complement motif

Consensus sequence: ASTAGGYGGCMSCAGDD

Best Matches for Motif ID 144 (Highest to Lowest)

Motif ID:	UP00538
Motif name:	Gli1_v015681_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:	17
Similarity score:	0.0268744

Alignment:

```
BTBVTCVTGGGTGGTCMVVDVBB
-----ASTAGGYGGCMSCAGDD-
```

Original motif

Consensus sequence: BBBDVVRGACCACCCAVGABBAB

Reverse complement motif

Consensus sequence: BTBVTCVTGGGTGGTCMVVDVBB

Motif ID:	UP00538
Motif name:	Gli1_v016060_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:	17
Similarity score:	0.0280132

Alignment:

```
BDDHVDKGCCACCCVCGCTDBVH
HDCTGSYGCCMCCTAST------
```

Original motif

Consensus sequence: HVBDAGCGBGGGTGGCRDBDDDB

Reverse complement motif

Consensus sequence: BDDHVDKGCCACCCVCGCTDBVH

Motif ID: UP00538

Motif name:	Gli1_v015681_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:	17
Similarity score:	0.0281897

Alignment:

```
DVVTTVGTGGGHGGYAMHWHHHY
-----ASTAGGYGGCMSCAGDD-
```

Original motif

Consensus sequence: MHHHWHYTMCCHCCCACVAABVH

Reverse complement motif

Consensus sequence: DVVTTVGTGGGHGGYAMHWHHHY

Motif ID:	UP00540
Motif name:	Gli3_v015681_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:	17

Similarity score: 0.0307583

Alignment:
YBVDMGTGGGTGGTCKVVBVBBT
----ASTAGGYGGCMSCAGDD--

Original motif
Consensus sequence: ABBBBVVRGACCACCCACRDBBM

Reverse complement motif
Consensus sequence: YBVDMGTGGGTGGTCKVVBVBBT

Motif ID: UP00539
Motif name: Gli2_v016060_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: 17
Similarity score: 0.033913

Alignment:
DBCDWHCTGGGTGGTCMDHBBAH
-----ASTAGGYGGCMSCAGDD-

Original motif
Consensus sequence: DTVBDDRGACCACCCAGDWDGBH

Reverse complement motif
Consensus sequence: DBCDWHCTGGGTGGTCMDHBBAH

Dataset #: 4 **Motif ID: 145** **Motif name: grCCACyAGAkG**

Original motif

Consensus sequence: DDCCACYAGAKG

Reverse complement motif

Consensus sequence: CYTCTKGTGGHH

Best Matches for Motif ID 145 (Highest to Lowest)

Motif ID:	UP00231
Motif name:	Nkx2-2
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

Alignment:

HDVRCCACTTGARADBD
--DDCCACYAGAKG---

Original motif

Consensus sequence: HDVRCCACTTGARADBD

Reverse complement motif

Consensus sequence: DVDTKTCAAGTGGKBDH

Motif ID:	UP00165
Motif name:	Titf1
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:	0.00595864

Alignment:
AAHYTCAAGTGGBTBV
--CYTCTKGTGGHH--

Original motif

Consensus sequence: BVABCCACTTGAMHTT

Reverse complement motif

Consensus sequence: AAHYTCAAGTGGBTBV

Motif ID:	UP00249
Motif name:	Nkx2-5
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:	0.00794079

Alignment:

```
HDADCCACTTRAAWTT
--DDCCACYAGAKG--
```

Original motif

Consensus sequence: HDADCCACTTRAAWTT

Reverse complement motif

Consensus sequence: AAWTTMAAGTGGHTDH

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:	Forward
Position number:	8
Number of overlap:	12
Similarity score:	0.0107822

Alignment:

```
HGDHVHKGACCACCCGGBGBGDB
-------DDCCACYAGAKG----
```

Original motif

Consensus sequence: BHCBCBCCGGGTGGTCYHVHDCH

Reverse complement motif

Consensus sequence: HGDHVHKGACCACCCGGBGBGDB

Motif ID:	UP00050
Motif name:	Bhlhb2_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:	12

Similarity score: 0.0113877

Alignment:
DDHBHBSTCACGTGAHBBDHHM
-----CYTCTKGTGGHH-----

Original motif
Consensus sequence: RDHDBVDTCACGTGASBHVHDH

Reverse complement motif
Consensus sequence: DDHBHBSTCACGTGAHBBDHHM

Dataset #: 4 Motif ID: 146 Motif name: myrGYGCCmCCTast

Original motif
Consensus sequence: VBAGCGCCMCCTAST

Reverse complement motif
Consensus sequence: ASTAGGYGGCGCTBB

Best Matches for Motif ID 146 (Highest to Lowest)

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:	2
Number of overlap:	15
Similarity score:	0.015769

Alignment:

```
BDHHMCGCCCCCTHVBB
-VBAGCGCCMCCTAST-
```

Original motif

Consensus sequence: BDHHMCGCCCCCTHVBB

Reverse complement motif

Consensus sequence: BVVHAGGGGGCGRDHHB

Motif ID:	UP00068
Motif name:	Eomes_secondary
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:	15
Similarity score:	0.0179196

Alignment:

VBVDAGGTGTYGVBBV
-ASTAGGYGGCGCTBB

Original motif

Consensus sequence: VBVDAGGTGTYGVBBV

Reverse complement motif

Consensus sequence: VVBVCKACACCTHVBV

Motif ID:	UP00538
Motif name:	Gli1_v016060_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:	15
Similarity score:	0.020063

Alignment:
BDDHVDKGCCACCCVCGCTDBVH
--VBAGCGCCMCCTAST------

Original motif

Consensus sequence: HVBDAGCGBGGGTGGCRDBDDDB

Reverse complement motif

Consensus sequence: BDDHVDKGCCACCCVCGCTDBVH

Motif ID:	UP00539
Motif name:	Gli2_v015681_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:	15
Similarity score:	0.0236839

Alignment:

```
HTBVVVDGGACCACCCRGRDBG
----VBAGCGCCMCCTAST---
```

Original motif

Consensus sequence: HTBVVVDGGACCACCCRGRDBG

Reverse complement motif

Consensus sequence: CBDMCMGGGTGGTCCHVBVBAH

Motif ID:	UP00003

Motif name:	E2F3_primary
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:	15
Similarity score:	0.0240418

Alignment:

```
WHSGCGCGCCHTDHB
VBAGCGCCMCCTAST
```

Original motif

Consensus sequence: VHDADGGCGCGCSHW

Reverse complement motif

Consensus sequence: WHSGCGCGCCHTDHB

Dataset #: 4 Motif ID: 147 Motif name: asCAGrkGGCrsy

Original motif

Consensus sequence: ASCAGRGGGCRSB

Reverse complement motif

Consensus sequence: BSKGCCCMCTGST

Best Matches for Motif ID 147 (Highest to Lowest)

Motif ID:	UP00002
Motif name:	Sp4_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:	13
Similarity score:	4.36149e-05

Alignment:

```
BVVHAGGGGGCGRDHHB
-ASCAGRGGGCRSB---
```

Original motif

Consensus sequence: BDHHMCGCCCCCTHVBB

Reverse complement motif

Consensus sequence: BVVHAGGGGGCGRDHHB

Motif ID:	UP00046
Motif name:	Tcfe2a_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:	13
Similarity score:	0.00629602

Alignment:

```
HVDDVCAGATGKYHBBV
---ASCAGRGGGCRSB-
```

Original motif

Consensus sequence: HVDDVCAGATGKYHBBV

Reverse complement motif

Consensus sequence: VBBDMYCATCTGVHHBH

Motif ID:	UP00079
Motif name:	Esrra_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: 13
Similarity score: 0.0114104

Alignment:
DBBHHTGACCCCTBBYV
---BSKGCCCMCTGST-

Original motif
Consensus sequence: VKBBAGGGGTCAHDBBH

Reverse complement motif
Consensus sequence: DBBHHTGACCCCTBBYV

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: Forward
Position number: 2
Number of overlap: 13
Similarity score: 0.0149411

Alignment:
VHTGCGGGGGCGGH
-ASCAGRGGGCRSB

Original motif

Reverse complement motif

Consensus sequence: HCCGCCCCCGCAHB

Consensus sequence: VHTGCGGGGGCGGH

Motif ID:	UP00099
Motif name:	Ascl2_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	13
Similarity score:	0.0154138

Alignment:

```
BBYVVCAGCTGCBVHHD
---ASCAGRGGGCRSB-
```

Original motif

Consensus sequence: BBYVVCAGCTGCBVHHD

Reverse complement motif

Consensus sequence: HHDVVGCAGCTGVBKVB

Dataset #: 4 **Motif ID: 148** **Motif name: wwTwAAAAww**

Original motif

Consensus sequence: DDTWAAAAHH

Reverse complement motif

Consensus sequence: HHTTTTWADD

Best Matches for Motif ID 148 (Highest to Lowest)

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:	10
Similarity score:	0.0170004

Alignment:

```
HDHHTTTTATTKKHDD
--HHTTTTWADD----
```

Original motif

Consensus sequence: HDHYYAATAAAAHHHH

Reverse complement motif

Consensus sequence: HDHHTTTTATTKKHDD

Motif ID:	UP00134
Motif name:	Hoxb13
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	2
Number of overlap:	10
Similarity score:	0.0201634

Alignment:

```
VDHWTTTTATTGGDKB
-HHTTTTWADD-----
```

Original motif

Consensus sequence: VRHCCAATAAAAWHHV

Reverse complement motif

Consensus sequence: VDHWTTTTATTGGDKB

Motif ID:	UP00121

Motif name:	Hoxd10
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	5
Number of overlap:	10
Similarity score:	0.0216837

Alignment:

```
HDDDATTTTATTKVRDB
---HHTTTTWADD----
```

Original motif

Consensus sequence: VDKVYAATAAAATDDDH

Reverse complement motif

Consensus sequence: HDDDATTTTATTKVRDB

Motif ID:	UP00213
Motif name:	Hoxa9
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: 0.0217118

Alignment:
WDTAWTTTWATGKCCGD
--HHTTTTWADD-----

Original motif
Consensus sequence: DCGGYCATWAAAWTADW

Reverse complement motif
Consensus sequence: WDTAWTTTWATGKCCGD

Motif ID: UP00078
Motif name: Arid3a_primary
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: 10
Similarity score: 0.0227023

Alignment:
VBBHTTAATTAAAMHHH
------DDTWAAAAHH-

Original motif
Consensus sequence: VBBHTTAATTAAAMHHH

Reverse complement motif
Consensus sequence: DHHYTTTAATTAAHBBV

Dataset #: 4 Motif ID: 149 Motif name: asmAGRGGGCrCTGsmkc

Original motif

Consensus sequence: ASMAGAGGGCRCTGSABH

Reverse complement motif

Consensus sequence: DBTSCAGMGCCCTCTRST

Best Matches for Motif ID 149 (Highest to Lowest)

Motif ID:	UP00528
Motif name:	Foxm1_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	18
Similarity score:	0.0559948

Alignment:

MWSMBAARRATGCDCABHATGD
---ASMAGAGGGCRCTGSABH-

Original motif

Consensus sequence: MWSMBAARRATGCDCABHATGD

Reverse complement motif

Consensus sequence: DCATDBTGHGCATKMTTBRSWR

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:	Backward
Position number:	1
Number of overlap:	18
Similarity score:	0.0570957

Alignment:
DDRMHBACGCGYGCGTDGBBDB
----ASMAGAGGGCRCTGSABH

Original motif

Consensus sequence: DDRMHBACGCGYGCGTDGBBDB

Reverse complement motif

Consensus sequence: BDVBCDACGCKCGCGTBHRKHD

Motif ID:	UP00539
Motif name:	Gli2_v015681_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	18
Similarity score:	0.0582215

Alignment:

```
HVGVSAGGAGGGTCYHHHHYVH
---ASMAGAGGGCRCTGSABH-
```

Original motif

Consensus sequence: HVGVSAGGAGGGTCYHHHHYVH

Reverse complement motif

Consensus sequence: DVMHHDHKGACCCTCCTSVCBH

Motif ID:	UP00540

Motif name:	Gli3_v015681_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:	18
Similarity score:	0.0613486

Alignment:

```
YBVDMGTGGGTGGTCKVVBVBBT
-ASMAGAGGGCRCTGSABH----
```

Original motif

Consensus sequence: ABBBBVVRGACCACCCACRDBBM

Reverse complement motif

Consensus sequence: YBVDMGTGGGTGGTCKVVBVBBT

Motif ID:	UP00538
Motif name:	Gli1_v015681_secondary
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:	18

Similarity score: 0.0613771

Alignment:
MHHHWHYTMCCHCCCACVAABVH
---DBTSCAGMGCCCTCTRST--

Original motif
Consensus sequence: MHHHWHYTMCCHCCCACVAABVH

Reverse complement motif
Consensus sequence: DVVTTVGTGGGHGGYAMHWHHHY

Dataset #: 4 Motif ID: 150 Motif name: waATwAAAATAww

Original motif
Consensus sequence: DHATWAAAATAHD

Reverse complement motif
Consensus sequence: DHTATTTTWATHD

Best Matches for Motif ID 150 (Highest to Lowest)

Motif ID:	UP00071
Motif name:	Sox21_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif

Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2
Number of overlap:	13
Similarity score:	0.00363797

Alignment:

```
HHHHATTATAATWDDD
--DHATWAAAATAHD-
```

Original motif

Consensus sequence: HHHHATTATAATWDDD

Reverse complement motif

Consensus sequence: HDDWATTATAATHHHH

Motif ID:	UP00016
Motif name:	Sry_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:	13
Similarity score:	0.0060438

Alignment:

VDDDATTATAATHDHV
-DHTATTTTWATHD--

Original motif

Consensus sequence: BHDHATTATAATDDDV

Reverse complement motif

Consensus sequence: VDDDATTATAATHDHV

Motif ID:	UP00004
Motif name:	Sox14_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:	13
Similarity score:	0.008022

Alignment:
DDDWATTATAATTHDH
-DHTATTTTWATHD--

Original motif

Consensus sequence: DHHAATTATAATWDDH

Reverse complement motif

Consensus sequence: DDDWATTATAATTHDH

Motif ID:	UP00213
Motif name:	Hoxa9
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:	13
Similarity score:	0.00895732

Alignment:

```
DCGGYCATWAAAWTADW
----DHATWAAAATAHD
```

Original motif

Consensus sequence: DCGGYCATWAAAWTADW

Reverse complement motif

Consensus sequence: WDTAWTTTWATGKCCGD

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:	1
Number of overlap:	13
Similarity score:	0.0122884

Alignment:

```
HDDDATTTTATTKVRDB
DHTATTTTWATHD----
```

Original motif

Consensus sequence: VDKVYAATAAAATDDDH

Reverse complement motif

Consensus sequence: HDDDATTTTATTKVRDB

Dataset #: 4 Motif ID: 151 Motif name: agrCCAGmAGrg

Original motif

Consensus sequence: HVGCCAGMAGRG

Reverse complement motif

Consensus sequence: CKCTRCTGGCVH

Best Matches for Motif ID 151 (Highest to Lowest)

Motif ID:	UP00052
Motif name:	Osr2_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	12
Similarity score:	0.00527025

Alignment:

```
HHHHGCTACKGTHVHH
---CKCTRCTGGCVH-
```

Original motif

Consensus sequence: HHVHACRGTAGCHHHD

Reverse complement motif

Consensus sequence: HHHHGCTACKGTHVHH

Motif ID:	UP00013
Motif name:	Gabpa_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:	12
Similarity score:	0.00879859

Alignment:

```
HVHHACCGGAAGTDHHV
--HVGCCAGMAGRG---
```

Original motif

Consensus sequence: HVHHACCGGAAGTDHHV

Reverse complement motif

Consensus sequence: BHHHACTTCCGGTHHBD

Motif ID:	UP00027
Motif name:	Osr1_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	2
Number of overlap:	12
Similarity score:	0.0106437

Alignment:

DHBHGCTACKGTHDHH
---CKCTRCTGGCVH-

Original motif

Consensus sequence: HHDHACRGTAGCHVHD

Reverse complement motif

Consensus sequence: DHBHGCTACKGTHDHH

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:	3
Number of overlap:	12
Similarity score:	0.0125184

Alignment:
DMTWDGTCAGCADWTTH
---HVGCCAGMAGRG--

Original motif

Consensus sequence: HAAWDTGCTGACDWARH

Reverse complement motif

Consensus sequence: DMTWDGTCAGCADWTTH

Motif ID:	UP00046
Motif name:	Tcfe2a_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:	12
Similarity score:	0.0127651

Alignment:

```
VBBDMYCATCTGVHHBH
----CKCTRCTGGCVH-
```

Original motif

Consensus sequence: HVDDVCAGATGKYHBBV

Reverse complement motif

Consensus sequence: VBBDMYCATCTGVHHBH

Dataset #: 4 Motif ID: 152 Motif name: yrCATGCAyr

Original motif

Consensus sequence: BRCATGCABD

Reverse complement motif

Consensus sequence: HVTGCATGKV

Best Matches for Motif ID 152 (Highest to Lowest)

Motif ID:	UP00236
Motif name:	Irx2
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:	10
Similarity score:	0

Alignment:

```
WVWDDTACATGTADDDW
-----BRCATGCABD--
```

Original motif

Consensus sequence: WDDDTACATGTADDWBW

Reverse complement motif

Consensus sequence: WVWDDTACATGTADDDW

Motif ID:	UP00223
Motif name:	Irx3_2226.1
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:	10
Similarity score:	0.000793267

Alignment:

```
DHDWBTACATGTAHDDD
-----BRCATGCABD--
```

Original motif

Consensus sequence: DDDHTACATGTAVWDHD

Reverse complement motif

Consensus sequence: DHDWBTACATGTAHDDD

Motif ID: UP00223

Motif name:	Irx3_0920.1
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:	10
Similarity score:	0.00151885

Alignment:

```
DDWWBTACATGTADDDD
-----BRCATGCABD--
```

Original motif

Consensus sequence: DDDDTACATGTAVWWHD

Reverse complement motif

Consensus sequence: DDWWBTACATGTADDDD

Motif ID:	UP00150
Motif name:	Irx6
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:	10

Similarity score: 0.00440523

Alignment:
HAHDTACATGTAVDWHT
--HVTGCATGKV-----

Original motif
Consensus sequence: HAHDTACATGTAVDWHT

Reverse complement motif
Consensus sequence: AHWDBTACATGTADHTH

Motif ID:	UP00250
Motif name:	Irx5
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:	10
Similarity score:	0.00456694

Alignment:
WVTDHWACATGTWHDDD
-----BRCATGCABD--

Original motif
Consensus sequence: DDDHWACATGTWHDABW

Reverse complement motif
Consensus sequence: WVTDHWACATGTWHDDD

Dataset #: 4 **Motif ID: 153** **Motif name: scAGrkGGCGcy**

Original motif

Consensus sequence: SHAGRGGGCGCB

Reverse complement motif

Consensus sequence: VGCGCCCMCTDS

Best Matches for Motif ID 153 (Highest to Lowest)

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:	4
Number of overlap:	12
Similarity score:	0

Alignment:

BDHHMCGCCCCCTHVBB
---VGCGCCCMCTDS--

Original motif

Consensus sequence: BDHHMCGCCCCCTHVBB

Reverse complement motif

Consensus sequence: BVVHAGGGGGCGRDHHB

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:	1
Number of overlap:	12
Similarity score:	0.0220034

Alignment:
HCCGCCCCCGCAHB
VGCGCCCMCTDS--

Original motif

Consensus sequence: HCCGCCCCCGCAHB

Reverse complement motif

Consensus sequence: VHTGCGGGGGCGGH

Motif ID:	UP00068
Motif name:	Eomes_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:	12
Similarity score:	0.0243258

Alignment:

```
VBVDAGGTGTYGVBBV
--SHAGRGGGCGCB--
```

Original motif

Consensus sequence: VBVDAGGTGTYGVBBV

Reverse complement motif

Consensus sequence: VVBVCKACACCTHVBV

Motif ID:	UP00079

Motif name:	Esrra_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:	12
Similarity score:	0.0256904

Alignment:

```
DBBHHTGACCCCTBBYV
---VGCGCCCMCTDS--
```

Original motif

Consensus sequence: VKBBAGGGGTCAHDBBH

Reverse complement motif

Consensus sequence: DBBHHTGACCCCTBBYV

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:	2
Number of overlap:	12

Similarity score: 0.0276084

Alignment:
WHSGCGCGCCHTDHB
--VGCGCCCMCTDS-

Original motif
Consensus sequence: VHDADGGCGCGCSHW

Reverse complement motif
Consensus sequence: WHSGCGCGCCHTDHB

Dataset #: 4 Motif ID: 154 Motif name: csCsCCTCCcc

Original motif
Consensus sequence: VBCCCCTCCHB

Reverse complement motif
Consensus sequence: BDGGAGGGGBV

Best Matches for Motif ID 154 (Highest to Lowest)

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:	Forward
Position number:	5
Number of overlap:	11
Similarity score:	0

Alignment:

```
BHBHDTGGCGGGGBDHD
----BDGGAGGGGBV--
```

Original motif

Consensus sequence: DHHBCCCCGCCAHHBHB

Reverse complement motif

Consensus sequence: BHBHDTGGCGGGGBDHD

Motif ID:	UP00022
Motif name:	Zfp740_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	11
Similarity score:	0.000861882

Alignment:

HVBCCCCCCCCMHHHB
--VBCCCCTCCHB---

Original motif

Consensus sequence: HVBCCCCCCCCMHHHB

Reverse complement motif

Consensus sequence: BHHDYGGGGGGGGBVD

Motif ID:	UP00093
Motif name:	Klf7_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:	11
Similarity score:	0.00225908

Alignment:
DHHDGGGCGRGGKHBH
---BDGGAGGGGBV--

Original motif

Consensus sequence: HBDRCCMCGCCCHHHD

Reverse complement motif

Consensus sequence: DHHDGGGCGRGGKHBH

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:	4
Number of overlap:	11
Similarity score:	0.00928712

Alignment:

```
BDHHMCGCCCCCTHVBB
---VBCCCCTCCHB---
```

Original motif

Consensus sequence: BDHHMCGCCCCCTHVBB

Reverse complement motif

Consensus sequence: BVVHAGGGGGCGRDHHB

Motif ID:	UP00047

Motif name:	Zbtb7b_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	5
Number of overlap:	11
Similarity score:	0.0113601

Alignment:

```
VHWTTHGGGGGGVDD
----BDGGAGGGGBV
```

Original motif

Consensus sequence: DDVCCCCCCHAAWHB

Reverse complement motif

Consensus sequence: VHWTTHGGGGGGVDD

Dataset #: 4 Motif ID: 155 Motif name: csCSCCdCCCcs

Original motif

Consensus sequence: VBCCCCDCCCHV

Reverse complement motif

Consensus sequence: VDGGGDGGGGBV

Best Matches for Motif ID 155 (Highest to Lowest)

Motif ID:	UP00093
Motif name:	Klf7_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	12
Similarity score:	0

Alignment:

```
HBDRCCMCGCCCHHHD
--VBCCCCDCCCHV--
```

Original motif

Consensus sequence: HBDRCCMCGCCCHHHD

Reverse complement motif

Consensus sequence: DHHDGGGCGRGGKHBH

Motif ID:	UP00021
Motif name:	Zfp281_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	12
Similarity score:	0.00350351

Alignment:

```
GKRGGGGGGGGGBD
-VDGGGDGGGGBV--
```

Original motif

Consensus sequence: DBCCCCCCCCCCMYC

Reverse complement motif

Consensus sequence: GKRGGGGGGGGGBD

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:	Backward
Position number:	2

Number of overlap: 12
Similarity score: 0.00591405

Alignment:
BHHDYGGGGGGGGBVD
---VDGGGDGGGGBV-

Original motif
Consensus sequence: HVBCCCCCCCCMHHHB

Reverse complement motif
Consensus sequence: BHHDYGGGGGGGGBVD

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: Forward
Position number: 3
Number of overlap: 12
Similarity score: 0.0128691

Alignment:
DHHBCCCCGCCAHHBHB
--VBCCCCDCCCHV---

Original motif

Reverse complement motif

Consensus sequence: DHHBCCCCGCCAHHBHB

Consensus sequence: BHBHDTGGCGGGGBDHD

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:	Backward
Position number:	5
Number of overlap:	12
Similarity score:	0.0153192

Alignment:

```
HBBBCCGCCCCWHHHV
VBCCCCDCCCHV----
```

Original motif

Consensus sequence: HBBBCCGCCCCWHHHV

Reverse complement motif

Consensus sequence: BHHHWGGGGCGGBBVH

Dataset #: 4 Motif ID: 156 Motif name: rgyGCCMyCTksTGGccd

Original motif

Consensus sequence: RVYGCCCYCTKSTGGCHD

Reverse complement motif

Consensus sequence: DDGCCASYAGMGGGCKVM

Best Matches for Motif ID 156 (Highest to Lowest)

Motif ID:	UP00400
Motif name:	Zif268
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:	18
Similarity score:	0.0420151

Alignment:

```
BADHBDHCGCCCMCGCAHHDBBV
-----RVYGCCCYCTKSTGGCHD
```

Original motif

Consensus sequence: BADHBDHCGCCCMCGCAHHDBBV

Reverse complement motif

Consensus sequence: VVVDHHTGCGYGGGCGDHVHHTB

Motif ID:	UP00539
Motif name:	Gli2_v015681_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:	18
Similarity score:	0.0449867

Alignment:

```
HVGVSAGGAGGGTCYHHHHYVH
----RVYGCCCYCTKSTGGCHD
```

Original motif

Consensus sequence: HVGVSAGGAGGGTCYHHHHYVH

Reverse complement motif

Consensus sequence: DVMHHDHKGACCCTCCTSVCBH

Motif ID:	UP00539
Motif name:	Gli2_v016060_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:	18
Similarity score:	0.0484904

Alignment:

```
RTHBSYCGCCMCMYVCGBTVDH
----RVYGCCCYCTKSTGGCHD
```

Original motif

Consensus sequence: RTHBSYCGCCMCMYVCGBTVDH

Reverse complement motif

Consensus sequence: HDBABCGBKRGYGGCGMSBHAK

Motif ID:	UP00538
Motif name:	Gli1_v016060_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:	18
Similarity score:	0.0486343

Alignment:
HVBDAGCGBGGGTGGCRDBDDDB
RVYGCCCYCTKSTGGCHD-----

Original motif
Consensus sequence: HVBDAGCGBGGGTGGCRDBDDDB

Reverse complement motif
Consensus sequence: BDDHVDKGCCACCCVCGCTDBVH

Motif ID:	UP00050
Motif name:	Bhlhb2_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:	18
Similarity score:	0.0531558

Alignment:
DDHBHBSTCACGTGAHBBDHHM
----DDGCCASYAGMGGGCKVM

Original motif
Consensus sequence: RDHDBVDTCACGTGASBHVHDH

Reverse complement motif
Consensus sequence: DDHBHBSTCACGTGAHBBDHHM

Dataset #: 4 **Motif ID: 157** **Motif name: wtATTTTTAww**

Original motif

Consensus sequence: DTATTTTTAWW

Reverse complement motif

Consensus sequence: WWTAAAAATAD

Best Matches for Motif ID 157 (Highest to Lowest)

Motif ID:	UP00051
Motif name:	Sox8_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:	11
Similarity score:	0

Alignment:

DDDHDAACAATWBATDD
--WWTAAAAATAD----

Original motif

Consensus sequence: DDATBWATTGTTHHDDD

Reverse complement motif

Consensus sequence: DDDHDAACAATWBATDD

Motif ID:	UP00034
Motif name:	Sox7_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	5
Number of overlap:	11
Similarity score:	1.71331e-05

Alignment:
WBHHHHHMDATTGTTHDHDVHH
-------DTATTTTTAWW----

Original motif

Consensus sequence: HHBDHDDAACAATDRHHHHHBW

Reverse complement motif

Consensus sequence: WBHHHHHMDATTGTTHDHDVHH

Motif ID:	UP00096
Motif name:	Sox13_primary
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:	11
Similarity score:	0.00013394

Alignment:

```
DHDRGAACAATWWDHW
--WWTAAAAATAD---
```

Original motif

Consensus sequence: DHDRGAACAATWWDHW

Reverse complement motif

Consensus sequence: WHDWWATTGTTCKDHD

Motif ID:	UP00091

Motif name:	Sox5_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	11
Similarity score:	0.00179252

Alignment:

```
DHDDWATTGTTCDDHD
---DTATTTTTAWW--
```

Original motif

Consensus sequence: DHDDGAACAATWDDHD

Reverse complement motif

Consensus sequence: DHDDWATTGTTCDDHD

Motif ID:	UP00213
Motif name:	Hoxa9
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	6
Number of overlap:	11

Similarity score: 0.00180638

Alignment:
WDTAWTTTWATGKCCGD
-DTATTTTTAWW-----

Original motif
Consensus sequence: DCGGYCATWAAAWTADW

Reverse complement motif
Consensus sequence: WDTAWTTTWATGKCCGD

Dataset #: 4 Motif ID: 158 Motif name: grCCACwAGrk

Original motif
Consensus sequence: DDCCACWAGRK

Reverse complement motif
Consensus sequence: YMCTWGTGGHH

Best Matches for Motif ID 158 (Highest to Lowest)

Motif ID:	UP00231
Motif name:	Nkx2-2
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:	11
Similarity score:	0

Alignment:

```
HDVRCCACTTGARADBD
--DDCCACWAGRK----
```

Original motif

Consensus sequence: HDVRCCACTTGARADBD

Reverse complement motif

Consensus sequence: DVDTKTCAAGTGGKBDH

Motif ID:	UP00060
Motif name:	Max_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	11
Similarity score:	0.00190925

Alignment:

DDASCACGTGBTBVDD
-DDCCACWAGRK----

Original motif
Consensus sequence: DDASCACGTGBTBVDD

Reverse complement motif
Consensus sequence: HHVBABCACGTGSTHD

Motif ID:	UP00070
Motif name:	Gcm1_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:	11
Similarity score:	0.00460463

Alignment:
BYMBKCCCCTATDVBHD
---DDCCACWAGRK---

Original motif
Consensus sequence: DDBVHATAGGGGRBRMB

Reverse complement motif
Consensus sequence: BYMBKCCCCTATDVBHD

Motif ID:	UP00165
Motif name:	Titf1
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	11
Similarity score:	0.00482349

Alignment:

```
AAHYTCAAGTGGBTBV
---YMCTWGTGGHH--
```

Original motif

Consensus sequence: BVABCCACTTGAMHTT

Reverse complement motif

Consensus sequence: AAHYTCAAGTGGBTBV

Motif ID:	UP00249

Motif name:	Nkx2-5
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:	0.00533429

Alignment:

```
HDADCCACTTRAAWTT
--DDCCACWAGRK---
```

Original motif

Consensus sequence: HDADCCACTTRAAWTT

Reverse complement motif

Consensus sequence: AAWTTMAAGTGGHTDH

Dataset #: 4 Motif ID: 159 Motif name: kkAAGAGCAsy

Original motif

Consensus sequence: DBAAGAGCAVH

Reverse complement motif

Consensus sequence: HVTGCTCTTBH

Best Matches for Motif ID 159 (Highest to Lowest)

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:	Backward
Position number:	6
Number of overlap:	11
Similarity score:	0

Alignment:

```
DDHBYGAGCACTGBHHB
-DBAAGAGCAVH-----
```

Original motif

Consensus sequence: BDHVCAGTGCTCMBHDD

Reverse complement motif

Consensus sequence: DDHBYGAGCACTGBHHB

Motif ID:	UP00048
Motif name:	Rara
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:	11
Similarity score:	0.00374756

Alignment:

```
HHVGTGACCTTTDVDD
--HVTGCTCTTBH---
```

Original motif

Consensus sequence: DHBHAAAGGTCACVHD

Reverse complement motif

Consensus sequence: HHVGTGACCTTTDVDD

Motif ID:	UP00035
Motif name:	Hic1_secondary
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: 0.00417461

Alignment:
VHHDWTGGGCAMDHBH
--DBAAGAGCAVH---

Original motif
Consensus sequence: DBDDRTGCCCAWDHDV

Reverse complement motif
Consensus sequence: VHHDWTGGGCAMDHBH

Motif ID: UP00066
Motif name: Hnf4a_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: 11
Similarity score: 0.00430492

Alignment:
HHAYTGGACTTTHDBV
--HVTGCTCTTBH---

Original motif

Reverse complement motif

Consensus sequence: BBHHAAAGTCCAMTHH

Consensus sequence: HHAYTGGACTTTHDBV

Motif ID:	UP00079
Motif name:	Esrra_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	11
Similarity score:	0.00467336

Alignment:

```
HHBVHTGACCTTGVDHD
---HVTGCTCTTBH---
```

Original motif

Consensus sequence: DHDBCAAGGTCAHVBDH

Reverse complement motif

Consensus sequence: HHBVHTGACCTTGVDHD

Dataset #: 4 **Motif ID: 160** **Motif name: brCAGGGCCrs**

Original motif

Consensus sequence: BVCAGGGCCVB

Reverse complement motif

Consensus sequence: BBGGCCCTGBB

Best Matches for Motif ID 160 (Highest to Lowest)

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:	4
Number of overlap:	11
Similarity score:	0.00628499

Alignment:

```
VBHHVCAGGTGCDVDHD
---BVCAGGGCCVB---
```

Original motif

Consensus sequence: VBHHVCAGGTGCDVDHD

Reverse complement motif

Consensus sequence: DHDBHGCACCTGBDDVB

Motif ID:	UP00095
Motif name:	Zfp691_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:	11
Similarity score:	0.00878794

Alignment:

```
BDHVCAGTGCTCMBHDD
--BVCAGGGCCVB----
```

Original motif

Consensus sequence: BDHVCAGTGCTCMBHDD

Reverse complement motif

Consensus sequence: DDHBYGAGCACTGBHHB

Motif ID:	UP00031

Motif name:	Zbtb3_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	6
Number of overlap:	11
Similarity score:	0.00959728

Alignment:

```
BBBAVTGCAGTGBBVDD
-----BVCAGGGCCVB-
```

Original motif

Consensus sequence: DDBBBCACTGCABTBBB

Reverse complement motif

Consensus sequence: BBBAVTGCAGTGBBVDD

Motif ID:	UP00079
Motif name:	Esrra_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: 0.0163402

Alignment:
DHDBCAAGGTCAHVBDH
--BVCAGGGCCVB----

Original motif
Consensus sequence: DHDBCAAGGTCAHVBDH

Reverse complement motif
Consensus sequence: HHBVHTGACCTTGVDHD

Motif ID: UP00539
Motif name: Gli2_v015681_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: 11
Similarity score: 0.0177751

Alignment:
DVMHHDHKGACCCTCCTSVCBH
------BBGGCCCTGBB-----

Original motif
Consensus sequence: HVGVSAGGAGGGTCYHHHHYVH

Reverse complement motif
Consensus sequence: DVMHHDHKGACCCTCCTSVCBH

Dataset #: 4 Motif ID: 161 Motif name: ssCGCwGCGss

Original motif

Consensus sequence: VSCGCDGCGSB

Reverse complement motif

Consensus sequence: BSCGCDGCGSV

Best Matches for Motif ID 161 (Highest to Lowest)

Motif ID:	UP00065
Motif name:	Zfp161_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	3
Number of overlap:	11
Similarity score:	0

Alignment:

VVGCVMTGCGCGKC
-VSCGCDGCGSB--

Original motif
Consensus sequence: GYCGCGCARBGCVB

Reverse complement motif
Consensus sequence: VVGCVMTGCGCGKC

Motif ID:	UP00031
Motif name:	Zbtb3_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:	0.00206218

Alignment:
DDBBBCACTGCABTBBB
---VSCGCDGCGSB---

Original motif
Consensus sequence: DDBBBCACTGCABTBBB

Reverse complement motif
Consensus sequence: BBBAVTGCAGTGBBVDD

Motif ID:	UP00526
Motif name:	Foxn1_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	4
Number of overlap:	11
Similarity score:	0.010781

Alignment:

```
HDWHMHGACGCGCGTRBVVBHW
---VSCGCDGCGSB--------
```

Original motif

Consensus sequence: WHVBVVMACGCGCGTCDYHWDH

Reverse complement motif

Consensus sequence: HDWHMHGACGCGCGTRBVVBHW

Motif ID:	UP00003

Motif name:	E2F3_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:	11
Similarity score:	0.0140886

Alignment:

```
HBHWYGGCGCCAMDVBB
VSCGCDGCGSB------
```

Original motif

Consensus sequence: HBHWYGGCGCCAMDVBB

Reverse complement motif

Consensus sequence: BBBDYTGGCGCCKWDBD

Motif ID:	UP00001
Motif name:	E2F2_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:	11

Similarity score: 0.0150699

Alignment:
HVBWYGGCGCCAADVBB
VSCGCDGCGSB------

Original motif
Consensus sequence: HVBWYGGCGCCAADVBB

Reverse complement motif
Consensus sequence: BBBDTTGGCGCCKWVVD

Dataset #: 4 Motif ID: 162 Motif name: ccAsCCCCAcc

Original motif
Consensus sequence: HVASCCCCABH

Reverse complement motif
Consensus sequence: DBTGGGGSTVD

Best Matches for Motif ID 162 (Highest to Lowest)

Motif ID:	UP00021
Motif name:	Zfp281_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:	11
Similarity score:	0.00452097

Alignment:

```
VDDAHTGGGGGTHWYYD
---DBTGGGGSTVD---
```

Original motif

Consensus sequence: DKKWDACCCCCAHTDDV

Reverse complement motif

Consensus sequence: VDDAHTGGGGGTHWYYD

Motif ID:	UP00024
Motif name:	Glis2_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	4
Number of overlap:	11
Similarity score:	0.00896029

Alignment:

HKBBGGGGGGTCVHHH
--DBTGGGGSTVD---

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:	Original Motif
Direction:	Backward
Position number:	3
Number of overlap:	11
Similarity score:	0.010641

Alignment:
HVBCCCCCCCCMHHHB
---HVASCCCCABH--

Original motif

Consensus sequence: HVBCCCCCCCCMHHHB

Reverse complement motif

Consensus sequence: BHHDYGGGGGGGGBVD

Motif ID:	UP00070
Motif name:	Gcm1_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:	0.0169652

Alignment:

```
HVVHACCCGCATVDHD
--HVASCCCCABH---
```

Original motif

Consensus sequence: HVVHACCCGCATVDHD

Reverse complement motif

Consensus sequence: DHDVATGCGGGTHVVH

Motif ID:	UP00047

Motif name:	Zbtb7b_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Backward
Position number:	1
Number of overlap:	11
Similarity score:	0.0172076

Alignment:

```
VHWTTHGGGGGGVDD
----DBTGGGGSTVD
```

Original motif

Consensus sequence: DDVCCCCCCHAAWHB

Reverse complement motif

Consensus sequence: VHWTTHGGGGGGVDD

Dataset #: 4 Motif ID: 163 Motif name: gwGGCCAGmAGAGGGCrby

Original motif

Consensus sequence: VHGGCCAGMAGAGGGCRBY

Reverse complement motif

Consensus sequence: KBKGCCCTCTYCTGGCCHV

Best Matches for Motif ID 163 (Highest to Lowest)

Motif ID:	UP00538
Motif name:	Gli1_v016060_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:	19
Similarity score:	0.0596242

Alignment:

```
HVBDAGCGBGGGTGGCRDBDDDB
VHGGCCAGMAGAGGGCRBY----
```

Original motif

Consensus sequence: HVBDAGCGBGGGTGGCRDBDDDB

Reverse complement motif

Consensus sequence: BDDHVDKGCCACCCVCGCTDBVH

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:	Forward

Position number:	5
Number of overlap:	19
Similarity score:	0.0616662

Alignment:

```
HGDHVHKGACCACCCGGBGBGDB
----KBKGCCCTCTYCTGGCCHV
```

Original motif

Consensus sequence: BHCBCBCCGGGTGGTCYHVHDCH

Reverse complement motif

Consensus sequence: HGDHVHKGACCACCCGGBGBGDB

Motif ID:	UP00540
Motif name:	Gli3_v015681_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:	19
Similarity score:	0.0653251

Alignment:

```
VMYDHDGMCCHCCKBGVVAAVH
---KBKGCCCTCTYCTGGCCHV
```

Original motif

Consensus sequence: DVTTVVCVYGGHGGYCHHDMYB

Reverse complement motif

Consensus sequence: VMYDHDGMCCHCCKBGVVAAVH

Motif ID:	UP00538
Motif name:	Gli1_v015681_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:	19
Similarity score:	0.0654989

Alignment:

```
BBBDVVRGACCACCCAVGABBAB
----KBKGCCCTCTYCTGGCCHV
```

Original motif

Consensus sequence: BBBDVVRGACCACCCAVGABBAB

Reverse complement motif

Consensus sequence: BTBVTCVTGGGTGGTCMVVDVBB

Motif ID:	UP00050
Motif name:	Bhlhb2_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	1
Number of overlap:	19
Similarity score:	0.066254

Alignment:

```
DDHBHBSTCACGTGAHBBDHHM
KBKGCCCTCTYCTGGCCHV---
```

Original motif

Consensus sequence: RDHDBVDTCACGTGASBHVHDH

Reverse complement motif

Consensus sequence: DDHBHBSTCACGTGAHBBDHHM

Dataset #: 4 Motif ID: 164 Motif name: asyAGrkGGCRGCAga

Original motif

Consensus sequence: ASYAGRKGGCAGCABH

Reverse complement motif

Consensus sequence: HBTGCTGCCYMCTKST

Best Matches for Motif ID 164 (Highest to Lowest)

Motif ID:	UP00002
Motif name:	Sp4_primary
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:	16
Similarity score:	0.0281944

Alignment:

```
BVVHAGGGGGCGRDHHB
-ASYAGRKGGCAGCABH
```

Original motif

Consensus sequence: BDHHMCGCCCCCTHVBB

Reverse complement motif

Consensus sequence: BVVHAGGGGGCGRDHHB

Motif ID:	UP00079
Motif name:	Esrra_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:	16
Similarity score:	0.0303833

Alignment:

```
DBBHHTGACCCCTBBYV
HBTGCTGCCYMCTKST-
```

Original motif

Consensus sequence: VKBBAGGGGTCAHDBBH

Reverse complement motif

Consensus sequence: DBBHHTGACCCCTBBYV

Motif ID:	UP00538
Motif name:	Gli1_v016060_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	2

Number of overlap: 16
Similarity score: 0.0375379

Alignment:
HVBDAGCGBGGGTGGCRDBDDDB
------ASYAGRKGGCAGCABH-

Original motif
Consensus sequence: HVBDAGCGBGGGTGGCRDBDDDB

Reverse complement motif
Consensus sequence: BDDHVDKGCCACCCVCGCTDBVH

Motif ID: UP00088
Motif name: Plagl1_secondary
Species: Mus musculus
Matching format of first motif: Original Motif
Matching format of second motif: Original Motif
Direction: Backward
Position number: 2
Number of overlap: 16
Similarity score: 0.0402795

Alignment:
DBHGGGGGGTACCHHHD
ASYAGRKGGCAGCABH-

Original motif

Reverse complement motif

Consensus sequence: DBHGGGGGGTACCHHHD

Consensus sequence: DHDDGGTACCCCCCHBH

Motif ID:	UP00066
Motif name:	Hnf4a_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	16
Similarity score:	0.0412697

Alignment:

```
BDBVMGGGGTCAABHDV
-ASYAGRKGGCAGCABH
```

Original motif

Consensus sequence: BDBVMGGGGTCAABHDV

Reverse complement motif

Consensus sequence: BHHVTTGACCCCYVVDB

Dataset #: 4 **Motif ID: 165** **Motif name: wgGCCAshAGrGGGCrsy**

Original motif

Consensus sequence: HDGCCACHAGRGGGCRBY

Reverse complement motif

Consensus sequence: KBKGCCCKCTHGTGGCHH

Best Matches for Motif ID 165 (Highest to Lowest)

Motif ID:	UP00538
Motif name:	Gli1_v016060_secondary
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:	18
Similarity score:	0.042684

Alignment:

```
HVBDAGCGBGGGTGGCRDBDDDB
-HDGCCACHAGRGGGCRBY----
```

Original motif

Consensus sequence: HVBDAGCGBGGGTGGCRDBDDDB

Reverse complement motif

Consensus sequence: BDDHVDKGCCACCCVCGCTDBVH

Motif ID:	UP00400
Motif name:	Zif268
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Backward
Position number:	1
Number of overlap:	18
Similarity score:	0.0461274

Alignment:

```
BADHBDHCGCCCMCGCAHHDBBV
-----KBKGCCCKCTHGTGGCHH
```

Original motif

Consensus sequence: BADHBDHCGCCCMCGCAHHDBBV

Reverse complement motif

Consensus sequence: VVVDHHTGCGYGGGCGDHVHHTB

Motif ID:	UP00050

Motif name:	Bhlhb2_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:	18
Similarity score:	0.0469346

Alignment:

```
DDHBHBSTCACGTGAHBBDHHM
KBKGCCCKCTHGTGGCHH----
```

Original motif

Consensus sequence: RDHDBVDTCACGTGASBHVHDH

Reverse complement motif

Consensus sequence: DDHBHBSTCACGTGAHBBDHHM

Motif ID:	UP00539
Motif name:	Gli2_v015681_secondary
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:	18

Similarity score: 0.0477902

Alignment:
HVGVSAGGAGGGTCYHHHHYVH
HDGCCACHAGRGGGCRBY----

Original motif
Consensus sequence: HVGVSAGGAGGGTCYHHHHYVH

Reverse complement motif
Consensus sequence: DVMHHDHKGACCCTCCTSVCBH

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: 2
Number of overlap: 18
Similarity score: 0.0484261

Alignment:
HGDHVHKGACCACCCGGBGBGDB
----KBKGCCCKCTHGTGGCHH-

Original motif
Consensus sequence: BHCBCBCCGGGTGGTCYHVHDCH

Reverse complement motif
Consensus sequence: HGDHVHKGACCACCCGGBGBGDB

Dataset #: 4 **Motif ID: 166** **Motif name: CasCAGrGGGCrsy**

Original motif

Consensus sequence: CACCAGRGGGCRSB

Reverse complement motif

Consensus sequence: BSKGCCCKCTGGTG

Best Matches for Motif ID 166 (Highest to Lowest)

Motif ID:	UP00002
Motif name:	Sp4_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:	14
Similarity score:	0.0233864

Alignment:

BVVHAGGGGGCGRDHHB
CACCAGRGGGCRSB---

Original motif

Consensus sequence: BDHHMCGCCCCCTHVBB

Reverse complement motif

Consensus sequence: BVVHAGGGGGCGRDHHB

Motif ID:	UP00046
Motif name:	Tcfe2a_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:	14
Similarity score:	0.0278012

Alignment:
HVDDVCAGATGKYHBBV
--CACCAGRGGGCRSB-

Original motif

Consensus sequence: HVDDVCAGATGKYHBBV

Reverse complement motif

Consensus sequence: VBBDMYCATCTGVHHBH

Motif ID:	UP00079
Motif name:	Esrra_secondary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	1
Number of overlap:	14
Similarity score:	0.0324879

Alignment:

```
VKBBAGGGGTCAHDBBH
CACCAGRGGGCRSB---
```

Original motif

Consensus sequence: VKBBAGGGGTCAHDBBH

Reverse complement motif

Consensus sequence: DBBHHTGACCCCTBBYV

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:	Forward
Position number:	1
Number of overlap:	14
Similarity score:	0.0369901

Alignment:
VHTGCGGGGGCGGH
CACCAGRGGGCRSB

Original motif
Consensus sequence: HCCGCCCCCGCAHB

Reverse complement motif
Consensus sequence: VHTGCGGGGGCGGH

Motif ID:	UP00099
Motif name:	Ascl2_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	3
Number of overlap:	14
Similarity score:	0.0370867

Alignment:
BBYVVCAGCTGCBVHHD
--CACCAGRGGGCRSB-

Original motif
Consensus sequence: BBYVVCAGCTGCBVHHD

Reverse complement motif
Consensus sequence: HHDVVGCAGCTGVBKVB

Dataset #: 4 Motif ID: 167 Motif name: rsyAGrkGGCGCCmyCTrsy

Original motif
Consensus sequence: DSYAGRKGGCGCCMYCTRSH

Reverse complement motif
Consensus sequence: HSKAGKYGGCGCCRMCTMSD

Best Matches for Motif ID 167 (Highest to Lowest)

Motif ID:	UP00527
Motif name:	Foxn4_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif

Direction:	Backward
Position number:	1
Number of overlap:	20
Similarity score:	0.0437543

Alignment:

```
DBBVDDDRTRGCGTCBBYTHGA
--HSKAGKYGGCGCCRMCTMSD
```

Original motif

Consensus sequence: DBBVDDDRTRGCGTCBBYTHGA

Reverse complement motif

Consensus sequence: TCDAMVBGACGCMAKDDDVBBD

Motif ID:	UP00539
Motif name:	Gli2_v015681_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:	20
Similarity score:	0.0440401

Alignment:

HVGVSAGGAGGGTCYHHHHYVH
--DSYAGRKGGCGCCMYCTRSH

Original motif

Consensus sequence: HVGVSAGGAGGGTCYHHHHYVH

Reverse complement motif

Consensus sequence: DVMHHDHKGACCCTCCTSVCBH

Motif ID:	UP00538
Motif name:	Gli1_v015681_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:	20
Similarity score:	0.0496059

Alignment:
DVVTTVGTGGGHGGYAMHWHHHY
--DSYAGRKGGCGCCMYCTRSH-

Original motif

Consensus sequence: MHHHWHYTMCCHCCCACVAABVH

Reverse complement motif

Consensus sequence: DVVTTVGTGGGHGGYAMHWHHHY

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:	3
Number of overlap:	20
Similarity score:	0.0498167

Alignment:

```
HDBABCGBKRGYGGCGMSBHAK
--HSKAGKYGGCGCCRMCTMSD
```

Original motif

Consensus sequence: RTHBSYCGCCMCMYVCGBTVDH

Reverse complement motif

Consensus sequence: HDBABCGBKRGYGGCGMSBHAK

Motif ID:	UP00538

Motif name:	Gli1_v016060_secondary
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:	20
Similarity score:	0.05124

Alignment:

```
BDDHVDKGCCACCCVCGCTDBVH
DSYAGRKGGCGCCMYCTRSH---
```

Original motif

Consensus sequence: HVBDAGCGBGGGTGGCRDBDDDB

Reverse complement motif

Consensus sequence: BDDHVDKGCCACCCVCGCTDBVH

Dataset #: 4 Motif ID: 168 Motif name: yrcrGYGCCMyCTGGtG

Original motif

Consensus sequence: HVCAGCGCCCYCTGGTG

Reverse complement motif

Consensus sequence: CACCAGMGGGCGCTGBD

Best Matches for Motif ID 168 (Highest to Lowest)

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:	1
Number of overlap:	17
Similarity score:	0.0436291

Alignment:

```
BDHHMCGCCCCCTHVBB
HVCAGCGCCCYCTGGTG
```

Original motif

Consensus sequence: BDHHMCGCCCCCTHVBB

Reverse complement motif

Consensus sequence: BVVHAGGGGGCGRDHHB

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:	Forward
Position number:	3
Number of overlap:	17
Similarity score:	0.0524589

Alignment:

```
HGDHVHKGACCACCCGGBGBGDB
--HVCAGCGCCCYCTGGTG----
```

Original motif

Consensus sequence: BHCBCBCCGGGTGGTCYHVHDCH

Reverse complement motif

Consensus sequence: HGDHVHKGACCACCCGGBGBGDB

Motif ID:	UP00526
Motif name:	Foxn1_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:	17

Similarity score: 0.0526806

Alignment:
DDRMHBACGCGYGCGTDGBBDB
---CACCAGMGGGCGCTGBD--

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:	Reverse Complement
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	5
Number of overlap:	17
Similarity score:	0.0534316

Alignment:
VVVDHHTGCGYGGGCGDHVHHTB
----CACCAGMGGGCGCTGBD--

Original motif
Consensus sequence: BADHBDHCGCCCMCGCAHHDBBV

Reverse complement motif
Consensus sequence: VVVDHHTGCGYGGGCGDHVHHTB

Motif ID:	UP00079
Motif name:	Esrra_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:	17
Similarity score:	0.0549193

Alignment:

```
DBBHHTGACCCCTBBYV
HVCAGCGCCCYCTGGTG
```

Original motif

Consensus sequence: VKBBAGGGGTCAHDBBH

Reverse complement motif

Consensus sequence: DBBHHTGACCCCTBBYV

Dataset #: 4 **Motif ID: 169** **Motif name: yvTGCyGCCmCCwGgtG**

Original motif

Consensus sequence: BVTGCTGCCACCWGGDG

Reverse complement motif

Consensus sequence: CDCCWGGTGGCAGCAVV

Best Matches for Motif ID 169 (Highest to Lowest)

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:	Backward
Position number:	1
Number of overlap:	17
Similarity score:	0.0458967

Alignment:

```
BDHHMCGCCCCCTHVBB
BVTGCTGCCACCWGGDG
```

Original motif

Consensus sequence: BDHHMCGCCCCCTHVBB

Reverse complement motif

Consensus sequence: BVVHAGGGGGCGRDHHB

Motif ID:	UP00540
Motif name:	Gli3_v015681_secondary
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:	17
Similarity score:	0.0491494

Alignment:

```
DVTTVVCVYGGHGGYCHHDMYB
----CDCCWGGTGGCAGCAVV-
```

Original motif

Consensus sequence: DVTTVVCVYGGHGGYCHHDMYB

Reverse complement motif

Consensus sequence: VMYDHDGMCCHCCKBGVVAAVH

Motif ID:	UP00047

Motif name:	Zbtb7b_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:	17
Similarity score:	0.0516119

Alignment:

```
BDDRVGACCACCHBDVB
BVTGCTGCCACCWGGDG
```

Original motif

Consensus sequence: BDDRVGACCACCHBDVB

Reverse complement motif

Consensus sequence: BBDVHGGTGGTCBKDDB

Motif ID:	UP00538
Motif name:	Gli1_v016060_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:	17

Similarity score: 0.0546478

Alignment:
HVBDAGCGBGGGTGGCRDBDDDB
-----CDCCWGGTGGCAGCAVV-

Original motif
Consensus sequence: HVBDAGCGBGGGTGGCRDBDDDB

Reverse complement motif
Consensus sequence: BDDHVDKGCCACCCVCGCTDBVH

Motif ID: UP00539
Motif name: Gli2_v016060_secondary
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: 17
Similarity score: 0.0549421

Alignment:
RTHBSYCGCCMCMYVCGBTVDH
-BVTGCTGCCACCWGGDG----

Original motif
Consensus sequence: RTHBSYCGCCMCMYVCGBTVDH

Reverse complement motif
Consensus sequence: HDBABCGBKRGYGGCGMSBHAK

Dataset #: 4 **Motif ID: 170** **Motif name: ssGGCrsTGCrs**

Original motif

Consensus sequence: VVGGCRSTGCVB

Reverse complement motif

Consensus sequence: BVGCASMGCCVV

Best Matches for Motif ID 170 (Highest to Lowest)

Motif ID:	UP00031
Motif name:	Zbtb3_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	12
Similarity score:	0.00823722

Alignment:

DDBBBCACTGCABTBBB
-VVGGCRSTGCVB----

Original motif

Consensus sequence: DDBBBCACTGCABTBBB

Reverse complement motif

Consensus sequence: BBBAVTGCAGTGBBVDD

Motif ID:	UP00000
Motif name:	Smad3_secondary
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:	12
Similarity score:	0.0121624

Alignment:
DHHBCCCCGCCAHHBHB
-BVGCASMGCCVV----

Original motif

Consensus sequence: DHHBCCCCGCCAHHBHB

Reverse complement motif

Consensus sequence: BHBHDTGGCGGGGBDHD

Motif ID:	UP00093
Motif name:	Klf7_primary
Species:	Mus musculus
Matching format of first motif:	Reverse Complement
Matching format of second motif:	Original Motif
Direction:	Forward
Position number:	2
Number of overlap:	12
Similarity score:	0.0151043

Alignment:

```
HBDRCCMCGCCCHHHD
-BVGCASMGCCVV---
```

Original motif

Consensus sequence: HBDRCCMCGCCCHHHD

Reverse complement motif

Consensus sequence: DHHDGGGCGRGGKHBH

Motif ID:	UP00001

Motif name:	E2F2_secondary
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:	12
Similarity score:	0.0208726

Alignment:

```
HVBWYGGCGCCAADVBB
-BVGCASMGCCVV----
```

Original motif

Consensus sequence: HVBWYGGCGCCAADVBB

Reverse complement motif

Consensus sequence: BBBDTTGGCGCCKWVVD

Motif ID:	UP00003
Motif name:	E2F3_secondary
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:	12

Similarity score: 0.0216248

Alignment:
HBHWYGGCGCCAMDVBB
-BVGCASMGCCVV----

Original motif
Consensus sequence: HBHWYGGCGCCAMDVBB

Reverse complement motif
Consensus sequence: BBBDYTGGCGCCKWDBD

Dataset #: 4 Motif ID: 171 Motif name: ysGTGGCCACsr

Original motif
Consensus sequence: BVGTGGCCACBV

Reverse complement motif
Consensus sequence: VBGTGGCCACVB

Best Matches for Motif ID 171 (Highest to Lowest)

Motif ID:	UP00053
Motif name:	Rxra_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

Alignment:

```
VHBHDGGGGTCAHBHBD
---VBGTGGCCACVB--
```

Original motif

Consensus sequence: DBHBDTGACCCCDHVHB

Reverse complement motif

Consensus sequence: VHBHDGGGGTCAHBHBD

Motif ID:	UP00035
Motif name:	Hic1_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:	12
Similarity score:	0.00337191

Alignment:

VHHDWTGGGCAMDHBH
--BVGTGGCCACBV--

Original motif
Consensus sequence: DBDDRTGCCCAWDHDV

Reverse complement motif
Consensus sequence: VHHDWTGGGCAMDHBH

Motif ID:	UP00079
Motif name:	Esrra_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:	12
Similarity score:	0.0057729

Alignment:
DBBHHTGACCCCTBBYV
--VBGTGGCCACVB---

Original motif
Consensus sequence: VKBBAGGGGTCAHDBBH

Reverse complement motif
Consensus sequence: DBBHHTGACCCCTBBYV

Motif ID:	UP00538
Motif name:	Gli1_v015681_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:	12
Similarity score:	0.00780464

Alignment:

```
BTBVTCVTGGGTGGTCMVVDVBB
--------BVGTGGCCACBV---
```

Original motif

Consensus sequence: BBBDVVRGACCACCCAVGABBAB

Reverse complement motif

Consensus sequence: BTBVTCVTGGGTGGTCMVVDVBB

Motif ID:	UP00066

Motif name:	Hnf4a_primary
Species:	Mus musculus
Matching format of first motif:	Original Motif
Matching format of second motif:	Reverse Complement
Direction:	Forward
Position number:	3
Number of overlap:	12
Similarity score:	0.00915211

Alignment:

```
BHHVTTGACCCCYVVDB
--BVGTGGCCACBV---
```

Original motif

Consensus sequence: BDBVMGGGGTCAABHDV

Reverse complement motif

Consensus sequence: BHHVTTGACCCCYVVDB

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