

Motif Enrichment in Promoter Sequences of Transcription Dynamic Types

300 nucleotides upstream and 300 nucleotides downstream of transcription start site.

Transcription Dynamic Types without enrichment at a corrected p-value below 0.5 are not shown.

Type	Number of motifs	page
Non-expressed upstream	137	2
Non-expressed downstream	71	16
Expressed upstream	217	24
Expressed downstream	157	45
Down upstream	12	61
Down downstream	11	64
Up upstream	27	67
Type 1 downstream	7	72
Type 2 downstream	1	75
Type 4 downstream	1	77
Type 6 upstream	8	79
Type 7 downstream	1	82
Type 8 upstream	2	84
Type 9 upstream	2	86

For further information on how to interpret these results or to get a copy of the MEME software please access <http://meme-suite.org>.

If you use AME in your research, please cite the following paper:

Robert McLeay and Timothy L. Bailey, "Motif Enrichment Analysis: A unified framework and method evaluation", *BMC Bioinformatics*, **11**:165, 2010, doi:10.1186/1471-2105-11-165. [\[full text\]](#)

[ENRICHED MOTIFS](#) | [INPUT FILES](#) | [PROGRAM INFORMATION](#)

ENRICHED MOTIFS

Fixed partition size: number of primary sequences (15480)

Sequence motif score: avg_odds
Background model source: file background.model
Background model frequencies: 0.291,0.209,0.209,0.291
Total pseudocount added to a motif column: 0.25

Statistical test: Wilcoxon rank-sum test
Ranksum method: quick

Threshold *p*-value for reporting results: 0.05


Number of multiple tests for Bonferroni correction: #Motifs × #PartitionsTested = 591 × 1 = 591

Sequence motif score: avg_odds
Background model source: file background.model
Background model frequencies: 0.291,0.209,0.209,0.291
Total pseudocount added to a motif column: 0.25

Statistical test: Wilcoxon rank-sum test
Ranksum method: quick

Threshold *p*-value for reporting results: 0.05

Number of multiple tests for Bonferroni correction: #Motifs × #PartitionsTested = 591 × 1 = 591

Logo	Database	ID	Name	<i>P</i> -value	Adjusted <i>p</i> -value
	uniprobe mouse	UP00031_2	Zbtb3_secondary	2.22e-37	1.31e-34



JASPAR CORE 2014
vertebrates

[MA0528.1](#)

ZNF263

3.48e-
33

2.06e-30



JASPAR CORE 2014
vertebrates

[MA0513.1](#)

SMAD2::SMAD3::SMAD4

1.32e-
31

7.80e-29



JASPAR CORE 2014
vertebrates

[MA0112.2](#)

ESR1

7.42e-
30

4.38e-27



JASPAR CORE 2014
vertebrates

[MA0499.1](#)

Myod1

2.60e-
28

1.54e-25



uniprobe mouse

[UP00101_2](#)

Sox12_secondary

2.32e-
27

1.37e-24



JASPAR CORE 2014
vertebrates

[MA0065.2](#)

PPARG::RXRA

1.65e-
26

9.78e-24



JASPAR CORE 2014
vertebrates

[MA0258.2](#)

ESR2

1.24e-
25

7.35e-23



JASPAR CORE 2014
vertebrates

[MA0498.1](#)

Meis1

3.90e-
25

2.30e-22



uniprobe mouse

[UP00095_1](#)

Zfp691_primary

9.91e-
25

5.85e-22



JASPAR CORE 2014
vertebrates

[MA0521.1](#)

Tcf12

1.09e-
24

6.47e-22



uniprobe mouse

[UP00042_2](#)

Gm397_secondary

4.68e-
24

2.76e-21



JASPAR CORE 2014
vertebrates

[MA0500.1](#)

Myog

2.65e-
23

1.57e-20



uniprobe mouse

[UP00122_1](#)

Tgif1_2342.2

7.80e-
23

4.61e-20



JASPAR CORE 2014
vertebrates

[MA0007.2](#)

AR

9.31e-
23

5.50e-20



JASPAR CORE 2014
vertebrates

[MA0154.2](#)

EBF1

1.52e-
22

8.97e-20



JASPAR CORE 2014
vertebrates

[MA0103.2](#)

ZEB1

2.89e-
22

1.71e-19



uniprobe mouse

[UP00026_2](#)

Zscan4_secondary

3.38e-
21

2.00e-18



uniprobe mouse

[UP00006_2](#)

Zic3_secondary

5.15e-
21

3.05e-18



JASPAR CORE 2014
vertebrates

[MA0002.2](#)

RUNX1

6.43e-
21

3.80e-18



JASPAR CORE 2014
vertebrates

[MA0598.1](#)

EHF

7.98e-
20

4.72e-17



JASPAR CORE 2014
vertebrates

[MA0522.1](#)

Tcf3

8.02e-
20

4.74e-17



uniprobe mouse

[UP00099_1](#)

Ascl2_primary

1.79e-
18

1.06e-15



uniprobe mouse

[UP00102_2](#)

Zic1_secondary

2.28e-18

1.35e-15



JASPAR CORE 2014 vertebrates

[MA0482.1](#)

Gata4

3.18e-18

1.88e-15



uniprobe mouse

[UP00000_1](#)

Smad3_primary

4.37e-18

2.58e-15



uniprobe mouse

[UP00082_2](#)

Zfp187_secondary

4.99e-18

2.95e-15



JASPAR CORE 2014 vertebrates

[MA0508.1](#)

PRDM1

5.12e-18

3.02e-15



JASPAR CORE 2014 vertebrates

[MA0472.1](#)

EGR2

1.29e-17

7.64e-15



uniprobe mouse

[UP00057_2](#)

Zic2_secondary

1.74e-17

1.03e-14



JASPAR CORE 2014 vertebrates

[MA0138.2](#)

REST

2.50e-17

1.48e-14



uniprobe mouse

[UP00034_2](#)

Sox7_secondary

6.05e-17

3.57e-14



uniprobe mouse

[UP00203_1](#)

Pknox1_2364.2

9.90e-17

5.85e-14














JASPAR CORE 2014 vertebrates

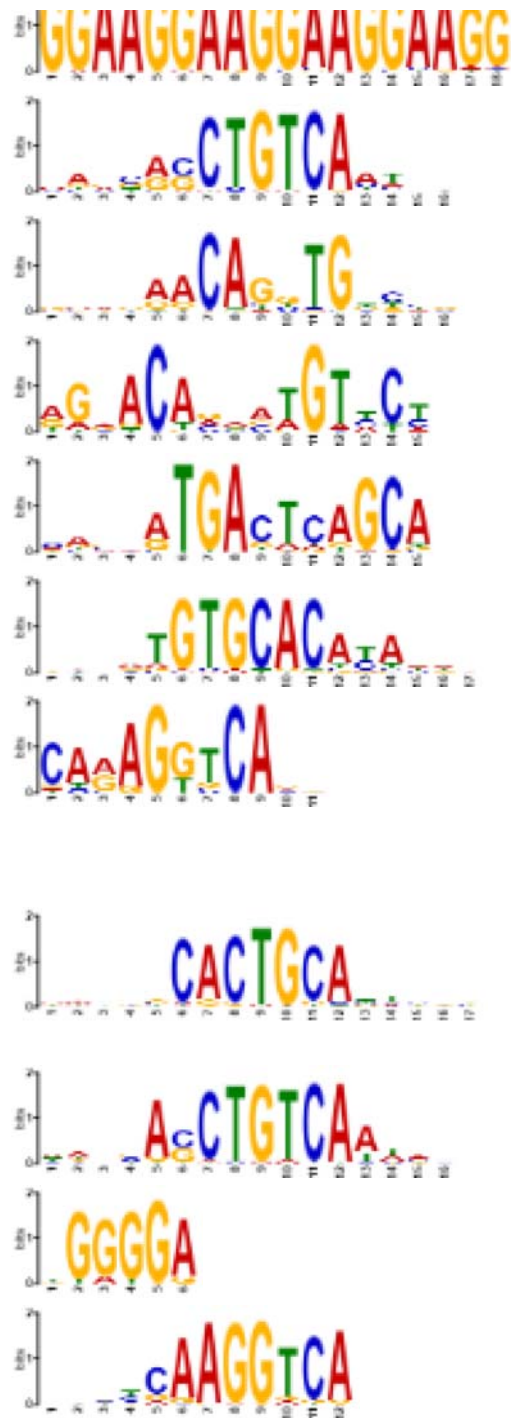
[MA0092.1](#)

Hand1::Tcfe2a

1.64e-16

9.68e-14

	JASPAR CORE 2014 vertebrates	MA0495.1	MAFF	2.34e-16	1.38e-13
	JASPAR CORE 2014 vertebrates	MA0048.1	NHLH1	2.40e-16	1.42e-13
	JASPAR CORE 2014 vertebrates	MA0160.1	NR4A2	3.71e-16	2.19e-13
	JASPAR CORE 2014 vertebrates	MA0503.1	Nkx2-5	4.81e-16	2.84e-13
	JASPAR CORE 2014 vertebrates	MA0111.1	Spz1	5.04e-16	2.98e-13
	uniprobe mouse	UP00040_2	Irf5_secondary	8.12e-16	4.80e-13
	uniprobe mouse	UP00042_1	Gm397_primary	8.61e-16	5.09e-13
	JASPAR CORE 2014 vertebrates	MA0484.1	HNF4G	1.04e-15	6.14e-13
	JASPAR CORE 2014 vertebrates	MA0130.1	ZNF354C	3.45e-15	2.04e-12
	uniprobe mouse	UP00258_1	Tgif2_3451.1	3.70e-15	2.19e-12
	JASPAR CORE 2014 vertebrates	MA0504.1	NR2C2	9.86e-15	5.82e-12



JASPAR CORE 2014
vertebrates

[MA0149.1](#)

EWSR1-FLI1

1.30e-
14

7.69e-12

uniprobe mouse

[UP00205_1](#)

Pknox2_3077.2

1.46e-
14

8.65e-12

uniprobe mouse

[UP00036_1](#)

Myf6_primary

1.78e-
14

1.05e-11

JASPAR CORE 2014
vertebrates

[MA0113.2](#)

NR3C1

1.80e-
14

1.06e-11

JASPAR CORE 2014
vertebrates

[MA0150.2](#)

Nfe2l2

2.52e-
14

1.49e-11

uniprobe mouse

[UP00026_1](#)

Zscan4_primary

2.97e-
14

1.75e-11

JASPAR CORE 2014
vertebrates

[MA0512.1](#)

Rxra

3.18e-
14

1.88e-11

uniprobe mouse

[UP00031_1](#)

Zbtb3_primary

4.88e-
14

2.88e-11

uniprobe mouse

[UP00226_1](#)

Mrg1_2246.2

5.83e-
14

3.44e-11

JASPAR CORE 2014
vertebrates

[MA0056.1](#)

MZF1_1-4

6.02e-
14

3.56e-11












JASPAR CORE 2014
vertebrates













[MA0141.2](#)

Esrrb

6.27e-
14

3.71e-11

	uniprobe mouse	UP00095_2	Zfp691_secondary	7.51e-14	4.44e-11
	JASPAR CORE 2014 vertebrates	MA0591.1	Bach1::Mafk	8.25e-14	4.88e-11
	JASPAR CORE 2014 vertebrates	MA0114.2	HNF4A	3.33e-13	1.97e-10
	JASPAR CORE 2014 vertebrates	MA0525.1	TP63	3.68e-13	2.17e-10
	JASPAR CORE 2014 vertebrates	MA0442.1	SOX10	4.40e-13	2.60e-10
	JASPAR CORE 2014 vertebrates	MA0496.1	MAFK	5.44e-13	3.21e-10
	uniprobe mouse	UP00014_2	Sox17_secondary	6.01e-13	3.55e-10
	uniprobe mouse	UP00210_1	Mrg2_2302.1	8.07e-13	4.77e-10
	uniprobe mouse	UP00186_1	Meis1_2335.1	1.37e-12	8.09e-10
	JASPAR CORE 2014 vertebrates	MA0461.1	Atoh1	3.61e-12	2.13e-9
	JASPAR CORE 2014 vertebrates	MA0080.3	Spi1	5.36e-12	3.17e-9

	uniprobe mouse	UP00013_2	Gabpa_secondary	1.31e-11	7.77e-9
	JASPAR CORE 2014 vertebrates	MA0073.1	RREB1	1.52e-11	8.96e-9
	JASPAR CORE 2014 vertebrates	MA0106.2	TP53	2.08e-11	1.23e-8
	uniprobe mouse	UP00011_2	Irf6_secondary	2.24e-11	1.33e-8
	uniprobe mouse	UP00007_2	Egr1_secondary	2.41e-11	1.42e-8
	JASPAR CORE 2014 vertebrates	MA0501.1	NFE2::MAF	5.34e-11	3.15e-8
	uniprobe mouse	UP00046_1	Tcfe2a_primary	6.51e-11	3.85e-8
	JASPAR CORE 2014 vertebrates	MA0088.1	znf143	9.75e-11	5.76e-8
	JASPAR CORE 2014 vertebrates	MA0159.1	RXR::RAR_DR5	1.07e-10	6.31e-8
	JASPAR CORE 2014 vertebrates	MA0511.1	RUNX2	1.34e-10	7.92e-8
	uniprobe mouse	UP00046_2	Tcfe2a_secondary	2.45e-10	1.45e-7
	uniprobe mouse	UP00013_1	Gabpa_primary	2.74e-11	1.66e-8



unprobe mouse

[UP00018_2](#)

Irf4_secondary

10

1.62e-7



JASPAR CORE 2014 vertebrates

[MA0155.1](#)

INSM1

8.65e-10

5.11e-7



JASPAR CORE 2014 vertebrates

[MA0519.1](#)

Stat5a::Stat5b

1.85e-9

1.09e-6



JASPAR CORE 2014 vertebrates

[MA0494.1](#)

Nr1h3::Rxra

1.90e-9

1.12e-6



JASPAR CORE 2014 vertebrates

[MA0592.1](#)

ESRRA

2.75e-9

1.63e-6



JASPAR CORE 2014 vertebrates

[MA0099.2](#)

JUN::FOS

4.23e-9

2.50e-6



JASPAR CORE 2014 vertebrates

[MA0050.2](#)

IRF1

4.48e-9

2.65e-6



JASPAR CORE 2014 vertebrates

[MA0163.1](#)

PLAG1

5.21e-9

3.08e-6



JASPAR CORE 2014 vertebrates

[MA0066.1](#)

PPARG

5.36e-9

3.17e-6



JASPAR CORE 2014 vertebrates

[MA0493.1](#)

Klf1

8.84e-9

5.22e-6



unprobe mouse

[UP00079_2](#)

Esrra_secondary

1.33e-8

7.89e-6



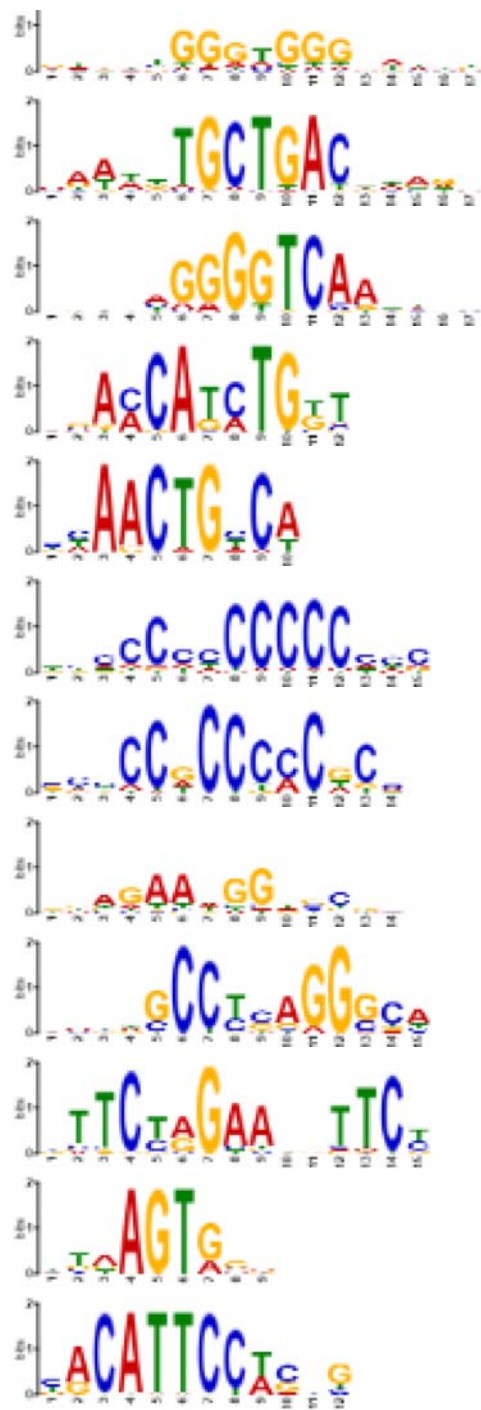
JASPAR CORE 2014 vertebrates

[MA0524.1](#)

TFAP2C

1.53e-8

9.04e-6



uniprobe mouse	UP00096_2	Sox13_secondary	1.55e-8	9.14e-6
uniprobe mouse	UP00045_1	Mafb_primary	1.78e-8	1.05e-5
uniprobe mouse	UP00066_1	Hnf4a_primary	2.74e-8	1.62e-5
JASPAR CORE 2014 vertebrates	MA0091.1	TAL1::TCF3	6.58e-8	3.89e-5
JASPAR CORE 2014 vertebrates	MA0100.2	Myb	6.93e-8	4.09e-5
uniprobe mouse	UP00021_1	Zfp281_primary	7.56e-8	4.47e-5
JASPAR CORE 2014 vertebrates	MA0162.2	EGR1	1.52e-7	9.00e-5
uniprobe mouse	UP00086_2	Irf3_secondary	2.02e-7	1.19e-4
JASPAR CORE 2014 vertebrates	MA0003.2	TFAP2A	3.05e-7	1.80e-4
JASPAR CORE 2014 vertebrates	MA0486.1	HSF1	3.06e-7	1.81e-4
JASPAR CORE 2014 vertebrates	MA0122.1	Nkx3-2	3.15e-7	1.86e-4
JASPAR CORE 2014 vertebrates	MA0090.1	TEAD1	3.87e-7	2.29e-4



JASPAR CORE 2014
vertebrates

[MA0017.1](#)

NR2F1

3.98e-
7

2.35e-4



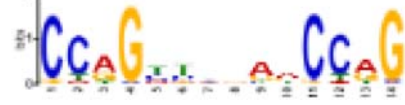
uniprobe mouse

[UP00098_2](#)

Rfx3_secondary

4.21e-
7

2.49e-4



JASPAR CORE 2014
vertebrates

[MA0145.2](#)

Tcfcp2l1

4.44e-
7

2.63e-4



JASPAR CORE 2014
vertebrates

[MA0081.1](#)

SPIB

9.82e-
7

5.80e-4



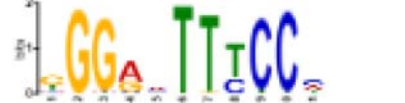
uniprobe mouse

[UP00078_2](#)

Arid3a_secondary

1.04e-
6

6.15e-4



JASPAR CORE 2014
vertebrates

[MA0105.3](#)

NFKB1

1.12e-
6

6.64e-4



uniprobe mouse

[UP00265_1](#)

Pitx3_3497.2

1.12e-
6

6.64e-4



JASPAR CORE 2014
vertebrates

[MA0596.1](#)

SREBF2

1.50e-
6

8.86e-4



JASPAR CORE 2014
vertebrates

[MA0471.1](#)

E2F6

1.59e-
6

9.40e-4



JASPAR CORE 2014
vertebrates

[MA0599.1](#)

KLF5

2.11e-
6

1.25e-3



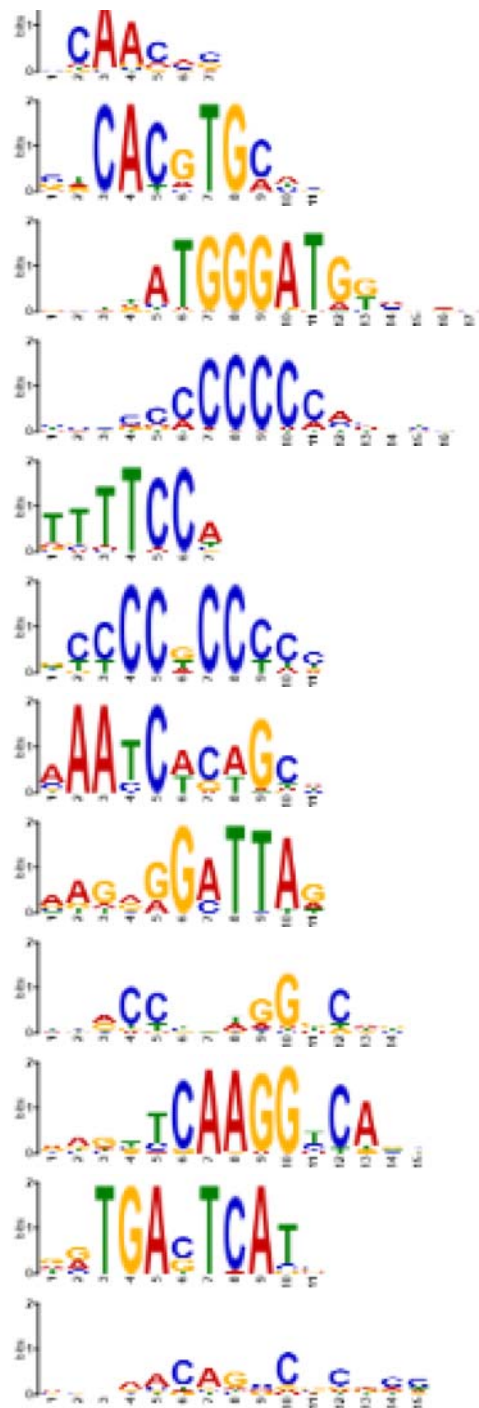
JASPAR CORE 2014
vertebrates

[MA0510.1](#)

RFX5

2.55e-
6

1.50e-3



JASPAR CORE 2014
vertebrates

[MA0133.1](#)

BRCA1

2.84e-
6

1.68e-3

JASPAR CORE 2014
vertebrates

[MA0464.1](#)

Bhlhe40

3.16e-
6

1.87e-3

uniprobe mouse

[UP00033_1](#)

Zfp410_primary

3.16e-
6

1.87e-3

uniprobe mouse

[UP00022_1](#)

Zfp740_primary

3.25e-
6

1.92e-3

JASPAR CORE 2014
vertebrates

[MA0152.1](#)

NFATC2

4.70e-
6

2.77e-3

JASPAR CORE 2014
vertebrates

[MA0079.3](#)

SP1

5.91e-
6

3.48e-3

JASPAR CORE 2014
vertebrates

[MA0483.1](#)

Gfi1b

6.30e-
6

3.72e-3

JASPAR CORE 2014
vertebrates

[MA0467.1](#)

Crx

6.34e-
6

3.74e-3

uniprobe mouse

[UP00005_2](#)

Tcfap2a_secondary

7.82e-
6

4.61e-3

JASPAR CORE 2014
vertebrates

[MA0505.1](#)

Nr5a2

8.75e-
6

5.16e-3

JASPAR CORE 2014
vertebrates

[MA0491.1](#)

JUND

1.15e-
5

6.79e-3












uniprobe mouse

[UP00036_2](#)

Myf6_secondary

1.92e-
5

1.13e-2

	JASPAR CORE 2014 vertebrates	MA0071.1	RORA_1	1.97e-5	1.16e-2
	JASPAR CORE 2014 vertebrates	MA0597.1	THAP1	2.30e-5	1.35e-2
	uniprobe mouse	UP00199_1	Six4_2860.1	2.30e-5	1.35e-2
	uniprobe mouse	UP00004_2	Sox14_secondary	3.00e-5	1.76e-2
	uniprobe mouse	UP00053_1	Rxra_primary	3.16e-5	1.85e-2
	uniprobe mouse	UP00068_1	Eomes_primary	3.83e-5	2.24e-2
	uniprobe mouse	UP00081_2	Mybl1_secondary	4.28e-5	2.50e-2
	uniprobe mouse	UP00035_2	Hic1_secondary	4.69e-5	2.74e-2
	JASPAR CORE 2014 vertebrates	MA0516.1	SP2	5.08e-5	2.96e-2
	uniprobe mouse	UP00035_1	Hic1_primary	6.17e-5	3.58e-2
	JASPAR CORE 2014 vertebrates	MA0526.1	USF2	8.05e-5	4.65e-2



JASPAR CORE 2014
vertebrates

[MA0463.1](#)

Bcl6

8.15e-
5

4.70e-2

INPUT FILES

Sequences

Primary Sequences	Number	Control Sequences	Number
ud300nonexpr.fa	15480	ud300expr.fa	6525
Control Sequences		ud300nonexpr.fa	15480
		ud300expr.fa	6525

Motifs

Database	Source	Motif Count
JASPAR CORE 2014 vertebrates	db/JASPAR/JASPAR_CORE_2014_verttebrates.meme	205
uniprobe mouse	db/MOUSE/uniprobe_mouse.meme	386
JASPAR CORE 2014 vertebrates	db/JASPAR/JASPAR_CORE_2014_verttebrates.meme	205
uniprobe mouse	db/MOUSE/uniprobe_mouse.meme	386

AME version

4.11.24.11.2 (Release date: Thu May 05 14:58:55 2016 -0700Thu May 05 14:58:55 2016 -0700)

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Command line summary

```
/home/meme/meme_4.11.2/bin/ame --verbose 1 --oc . --control ud300expr.fa --bgformat 2 --bgfile background.model --scoring avg --method ranksum --pvalue-report-threshold 0.05 ud300nonexpr.fa db/JASPAR/JASPAR_CORE_2014_verttebrates.meme db/MOUSE/uniprobe_mouse.meme
```

For further information on how to interpret these results or to get a copy of the MEME software please access <http://meme-suite.org>.

If you use AME in your research, please cite the following paper:

Robert McLeay and Timothy L. Bailey, "Motif Enrichment Analysis: A unified framework and method evaluation", *BMC Bioinformatics*, **11**:165, 2010, doi:10.1186/1471-2105-11-165. [\[full text\]](#)

[ENRICHED MOTIFS](#) | [INPUT FILES](#) | [PROGRAM INFORMATION](#)

ENRICHED MOTIFS

Fixed partition size: number of primary sequences (15480)

Sequence motif score: avg_odds
Background model source: file background.model
Background model frequencies: 0.291,0.209,0.209,0.291
Total pseudocount added to a motif column: 0.25

Statistical test: Wilcoxon rank-sum test
Ranksum method: quick

Threshold *p*-value for reporting results: 0.05

Number of multiple tests for Bonferroni correction: #Motifs × #PartitionsTested = 591 × 1 = 591


Sequence motif score: avg_odds
Background model source: file background.model
Background model frequencies: 0.291,0.209,0.209,0.291
Total pseudocount added to a motif column: 0.25

Statistical test: Wilcoxon rank-sum test
Ranksum method: quick

Threshold *p*-value for reporting results: 0.05

Number of multiple tests for Bonferroni correction: #Motifs × #PartitionsTested = 591 × 1 = 591



Logo	Database	ID	Name	<i>p</i> -value	Adjusted <i>p</i> -value
	JASPAR CORE 2014 vertebrates	MA0154.2	EBF1	1.65e-33	9.78e-31



JASPAR CORE 2014
vertebrates

[MA0114.2](#)

HNF4A

8.48e-21

5.01e-18



JASPAR CORE 2014
vertebrates

[MA0512.1](#)

Rxra

2.57e-20

1.52e-17



JASPAR CORE 2014
vertebrates

[MA0484.1](#)

HNF4G

6.17e-20

3.65e-17



uniprobe mouse

[UP00033_1](#)

Zfp410_primary

3.57e-19

2.11e-16



JASPAR CORE 2014
vertebrates

[MA0065.2](#)

PPARG::RXRA

4.61e-16

2.72e-13



JASPAR CORE 2014
vertebrates

[MA0142.1](#)

Pou5f1::Sox2

7.38e-16

4.36e-13



JASPAR CORE 2014
vertebrates

[MA0160.1](#)

NR4A2

1.55e-15

9.15e-13



JASPAR CORE 2014
vertebrates

[MA0496.1](#)

MAFK

6.76e-15

3.99e-12



JASPAR CORE 2014
vertebrates

[MA0130.1](#)

ZNF354C

9.21e-14

5.45e-11



JASPAR CORE 2014
vertebrates

[MA0113.2](#)

NR3C1

1.27e-13

7.52e-11



JASPAR CORE 2014
vertebrates

[MA0483.1](#)

Gfi1b

1.73e-13

1.02e-10



JASPAR CORE 2014
vertebrates

[MA0141.2](#)

Esrrb

2.24e-13

1.32e-10



JASPAR CORE 2014
vertebrates

[MA0092.1](#)

Hand1::Tcfe2a

6.44e-13

3.81e-10



JASPAR CORE 2014
vertebrates

[MA0007.2](#)

AR

6.64e-13

3.93e-10



JASPAR CORE 2014
vertebrates

[MA0528.1](#)

ZNF263

1.22e-12

7.20e-10



JASPAR CORE 2014
vertebrates

[MA0519.1](#)

Stat5a::Stat5b

1.94e-12

1.14e-9



JASPAR CORE 2014
vertebrates

[MA0258.2](#)

ESR2

2.15e-12

1.27e-9



JASPAR CORE 2014
vertebrates

[MA0463.1](#)

Bcl6

2.31e-11

1.37e-8



JASPAR CORE 2014
vertebrates

[MA0105.3](#)

NFKB1

5.26e-11

3.11e-8



uniprobe mouse

[UP00198_1](#)

Cphx_3484.1

1.02e-10

6.04e-8



uniprobe mouse

[UP00038_2](#)

Spdef_secondary

1.15e-10

6.82e-8



uniprobe mouse

[UP00107_1](#)

Nkx2-4_3074.1

1.44e-10

8.52e-8



JASPAR CORE 2014
vertebrates

[MA0071.1](#)

RORA_1

1.49e-10

8.78e-8



uniprobe mouse

[UP00231_1](#)

Nkx2-2_2823.1

2.18e-10

1.29e-7



JASPAR CORE 2014
vertebrates

[MA0592.1](#)

ESRRA

2.66e-10

1.57e-7



JASPAR CORE 2014
vertebrates

[MA0161.1](#)

NFIC

3.29e-10

1.94e-7



JASPAR CORE 2014
vertebrates

[MA0503.1](#)

Nkx2-5

3.47e-10

2.05e-7



JASPAR CORE 2014
vertebrates

[MA0070.1](#)

PBX1

6.82e-10

4.03e-7



uniprobe mouse

[UP00165_1](#)

Titf1_1722.2

8.86e-10

5.24e-7



JASPAR CORE 2014
vertebrates

[MA0495.1](#)

MAFF

1.30e-9

7.66e-7



uniprobe mouse

[UP00101_2](#)

Sox12_secondary

1.53e-9

9.06e-7



JASPAR CORE 2014
vertebrates

[MA0505.1](#)

Nr5a2

2.14e-9

1.27e-6



JASPAR CORE 2014
vertebrates

[MA0109.1](#)

Hltf

6.54e-9

3.87e-6



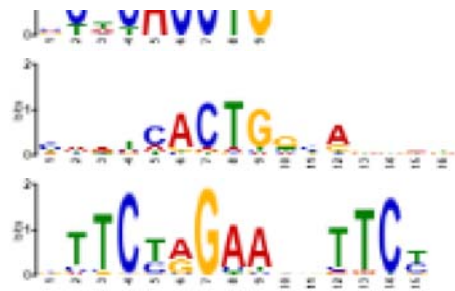
JASPAR CORE 2014
vertebrates

[MA0103.2](#)

ZEB1

7.02e-9

4.15e-6



vertebrates

uniprobe mouse

[UP00031_2](#)

Zbtb3_secondary

1.21e-8

7.17e-6



JASPAR CORE 2014 vertebrates

[MA0486.1](#)

HSF1

1.87e-8

1.10e-5



JASPAR CORE 2014 vertebrates

[MA0066.1](#)

PPARG

2.44e-8

1.44e-5



JASPAR CORE 2014 vertebrates

[MA0115.1](#)

NR1H2::RXRA

2.89e-8

1.71e-5

uniprobe mouse

[UP00185_1](#)

Pbx1_3203.1

3.69e-8

2.18e-5



uniprobe mouse

[UP00219_2](#)

Cutl1_3494.2

3.91e-8

2.31e-5



uniprobe mouse

[UP00249_1](#)

Nkx2-5_3436.1

5.24e-8

3.10e-5



JASPAR CORE 2014 vertebrates

[MA0089.1](#)

NFE2L1::MafG

9.75e-8

5.76e-5



JASPAR CORE 2014 vertebrates

[MA0152.1](#)

NFATC2

1.02e-7

6.03e-5



JASPAR CORE 2014 vertebrates

[MA0508.1](#)

PRDM1

1.09e-7

6.42e-5

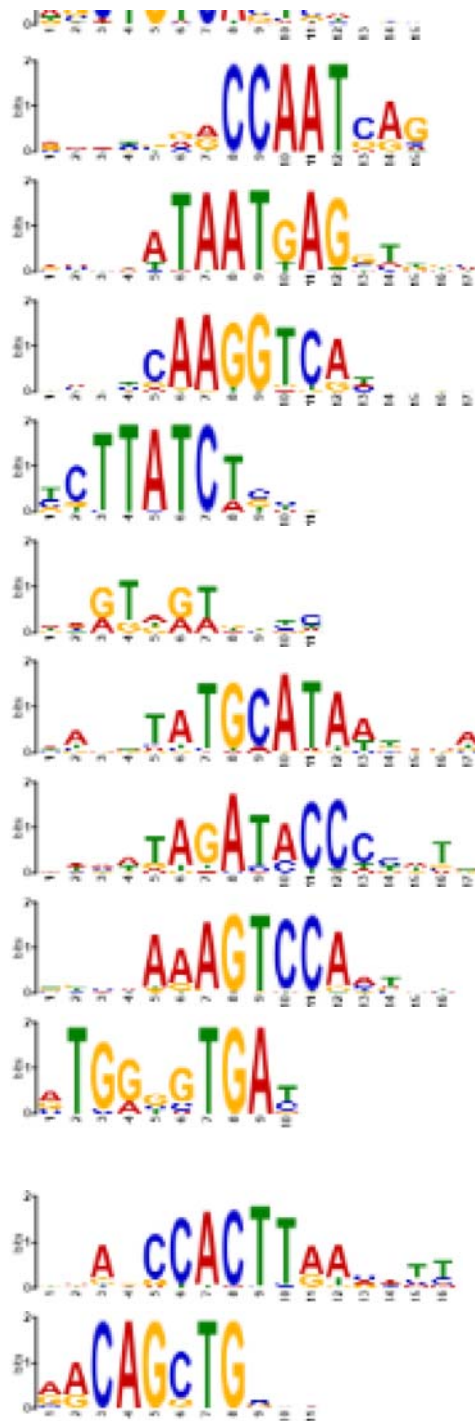
JASPAR CORE 2014 vertebrates

[MA0498.1](#)

Meis1

1.49e-7

8.81e-5



JASPAR CORE 2014
vertebrates

[MA0502.1](#)

NFYB

2.97e-7

1.76e-4

uniprobe mouse

[UP00146_2](#)

Pou6f1_3733.1

4.36e-7

2.57e-4

uniprobe mouse

[UP00079_1](#)

Esrra_primary

6.52e-7

3.85e-4

JASPAR CORE 2014
vertebrates

[MA0482.1](#)

Gata4

1.48e-6

8.71e-4

JASPAR CORE 2014
vertebrates

[MA0027.1](#)

En1

2.03e-6

1.20e-3

uniprobe mouse

[UP00211_1](#)

Pou3f3_3235.2

2.26e-6

1.34e-3

uniprobe mouse

[UP00232_1](#)

Dobox4_3956.2

2.29e-6

1.35e-3

uniprobe mouse

[UP00066_2](#)

Hnf4a_secondary

2.70e-6

1.59e-3

JASPAR CORE 2014
vertebrates

[MA0596.1](#)

SREBF2

3.28e-6

1.94e-3

uniprobe mouse

[UP00147_1](#)

Nkx2-6_3437.1

3.92e-6

2.32e-3

JASPAR CORE 2014
vertebrates

[MA0521.1](#)

Tcf12

4.76e-6

2.81e-3



uniprobe mouse

[UP00012_1](#)

Bbx_primary

6.71e-6

3.96e-3



JASPAR CORE 2014 vertebrates

[MA0056.1](#)

MZF1_1-4

8.07e-6

4.76e-3



JASPAR CORE 2014 vertebrates

[MA0090.1](#)

TEAD1

1.61e-5

9.49e-3



JASPAR CORE 2014 vertebrates

[MA0091.1](#)

TAL1::TCF3

1.83e-5

1.08e-2



uniprobe mouse

[UP00048_1](#)

Rara_primary

1.97e-5

1.16e-2



uniprobe mouse

[UP00055_2](#)

Hbp1_secondary

2.17e-5

1.28e-2



JASPAR CORE 2014 vertebrates

[MA0017.1](#)

NR2F1

3.15e-5

1.84e-2



JASPAR CORE 2014 vertebrates

[MA0499.1](#)

Myod1

3.24e-5

1.90e-2



JASPAR CORE 2014 vertebrates

[MA0442.1](#)

SOX10

3.71e-5

2.17e-2



JASPAR CORE 2014 vertebrates

[MA0507.1](#)

POU2F2

4.20e-5

2.45e-2



uniprobe mouse

[UP00058_1](#)

Tcf3_primary

4.60e-5

2.68e-2



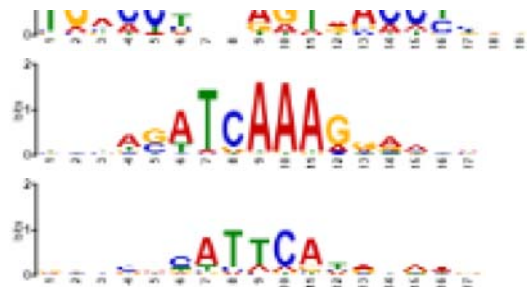
JASPAR CORE 2014 vertebrates

[MA0494.1](#)

Nr1h3::Rxra

6.04e-5

3.51e-2



vertebrates

uniprobe mouse

[UP00054_1](#)

Tcf7_primary

6.83e-5

3.95e-2

uniprobe mouse

[UP00014_2](#)

Sox17_secondary

7.06e-5

4.09e-2

INPUT FILES

Sequences

Primary Sequences	Number	Control Sequences	Number	Primary Sequences	Number	Control Sequences	Number
ud-300nonexpr.fa	15480	ud-300expr.fa	6525	ud-300nonexpr.fa	15480	ud-300expr.fa	6525

Motifs

Database	Source	Motif Count
JASPAR CORE 2014 vertebrates	db/JASPAR/JASPAR_CORE_2014 Vertebrates.meme	205
uniprobe mouse	db/MOUSE/uniprobe_mouse.meme	386
JASPAR CORE 2014 vertebrates	db/JASPAR/JASPAR_CORE_2014 Vertebrates.meme	205
uniprobe mouse	db/MOUSE/uniprobe_mouse.meme	386

AME version

4.11.24.11.2 (Release date: Thu May 05 14:58:55 2016 -0700Thu May 05 14:58:55 2016 -0700)

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Command line summary

```
/home/meme/meme_4.11.2/bin/ame --verbose 1 --oc . --control ud-300expr.fa --bgformat 2 --bgfile background.model --scoring avg --method ranksum --pvalue-report-threshold 0.05 ud-300nonexpr.fa db/JASPAR/JASPAR_CORE_2014 Vertebrates.meme db/MOUSE/uniprobe_mouse.meme
```

For further information on how to interpret these results or to get a copy of the MEME software please access <http://meme-suite.org>.

If you use AME in your research, please cite the following paper:

Robert McLeay and Timothy L. Bailey, "Motif Enrichment Analysis: A unified framework and method evaluation", *BMC Bioinformatics*, **11**:165, 2010, doi:10.1186/1471-2105-11-165. [\[full text\]](#)

[ENRICHED MOTIFS](#) | [INPUT FILES](#) | [PROGRAM INFORMATION](#)

ENRICHED MOTIFS

Fixed partition size: number of primary sequences (6525)

Sequence motif score: avg_odds

Background model source: file background.model

Background model frequencies: 0.291,0.209,0.209,0.291

Total pseudocount added to a motif column: 0.25

Statistical test: Wilcoxon rank-sum test

Ranksum method: quick

Threshold *p*-value for reporting results: 0.05

Number of multiple tests for Bonferroni correction: #Motifs × #PartitionsTested = 591 × 1 = 591

Sequence motif score: avg_odds

Background model source: file background.model

Background model frequencies: 0.291,0.209,0.209,0.291


Total pseudocount added to a motif column: 0.25

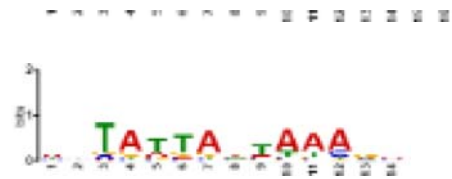
Statistical test: Wilcoxon rank-sum test

Ranksum method: quick

Threshold *p*-value for reporting results: 0.05

Number of multiple tests for Bonferroni correction: #Motifs × #PartitionsTested = 591 × 1 = 591

Logo	Database	ID	Name	<i>P</i> -value	Adjusted <i>p</i> -value
	uniprobe mouse	UP00029_1	Tbp_primary	2.04e-61	1.21e-58



uniprobe mouse

[UP00024_2](#)

Glis2_secondary

5.41e-54

3.20e-51



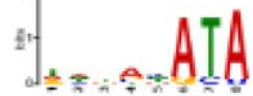
uniprobe mouse

[UP00255_1](#)

Dbx1_3486.1

2.63e-52

1.55e-49



JASPAR CORE 2014 vertebrates

[MA0033.1](#)

FOXL1

3.94e-52

2.33e-49



uniprobe mouse

[UP00049_1](#)

Sp100_primary

6.37e-52

3.77e-49



uniprobe mouse

[UP00071_1](#)

Sox21_primary

8.77e-46

5.18e-43



uniprobe mouse

[UP00244_1](#)

Tlx2_3498.2

4.39e-43

2.60e-40



uniprobe mouse

[UP00054_2](#)

Tcf7_secondary

1.47e-41

8.66e-39



uniprobe mouse

[UP00049_2](#)

Sp100_secondary

6.22e-39

3.68e-36



JASPAR CORE 2014 vertebrates

[MA0025.1](#)

NFIL3

2.86e-38

1.69e-35



uniprobe mouse

[UP00121_1](#)

Hoxd10_2368.2

4.86e-37

2.87e-34



uniprobe mouse

[UP00217_1](#)

Hoxa10_2318.1

6.65e-36

3.93e-33



uniprobe mouse

[UP00090_2](#)

Elf3_secondary

7.45e-36

4.40e-33



uniprobe mouse

[UP00004_1](#)

Sox14_primary

7.87e-36

4.65e-33



uniprobe mouse

[UP00225_1](#)

Hlx1_2350.1

3.57e-35

2.11e-32



uniprobe mouse

[UP00094_2](#)

Zfp128_secondary

5.32e-35

3.14e-32



uniprobe mouse

[UP00078_1](#)

Arid3a_primary

1.52e-33

8.98e-31



uniprobe mouse

[UP00114_1](#)

Homez_1063.2

9.40e-33

5.56e-30



uniprobe mouse

[UP00188_1](#)

Lmx1a_2238.2

3.53e-32

2.09e-29



uniprobe mouse

[UP00169_1](#)

Lmx1b_3433.2

2.53e-31

1.50e-28



JASPAR CORE 2014 vertebrates

[MA0135.1](#)

Lhx3

2.84e-31

1.68e-28



JASPAR CORE 2014 vertebrates

[MA0124.1](#)











NKX3-1

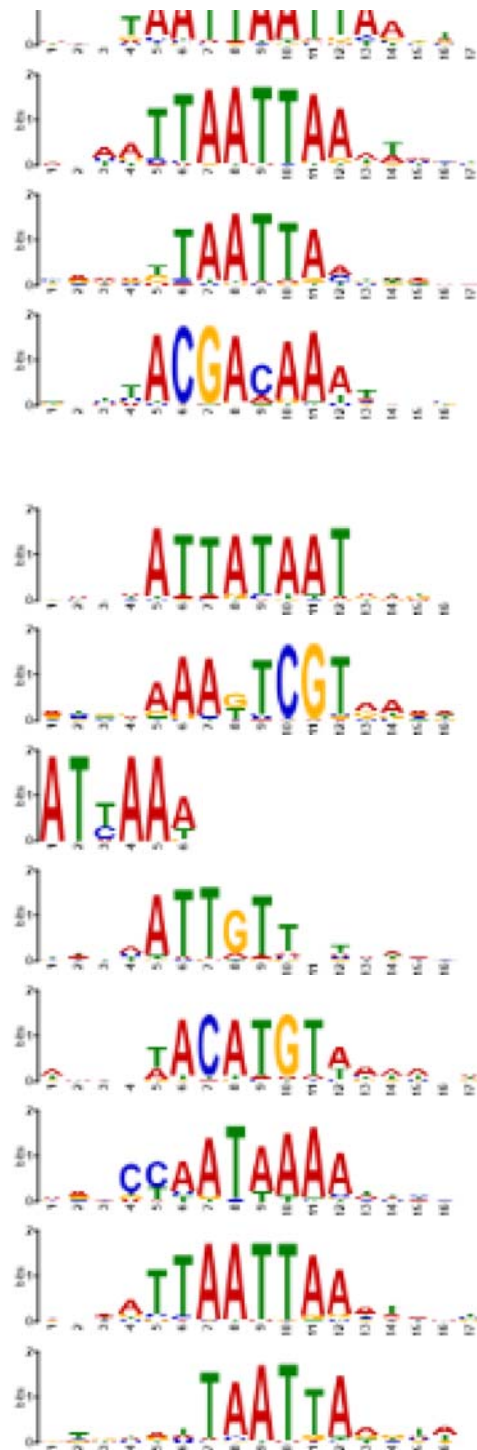
2.98e-31

1.76e-28

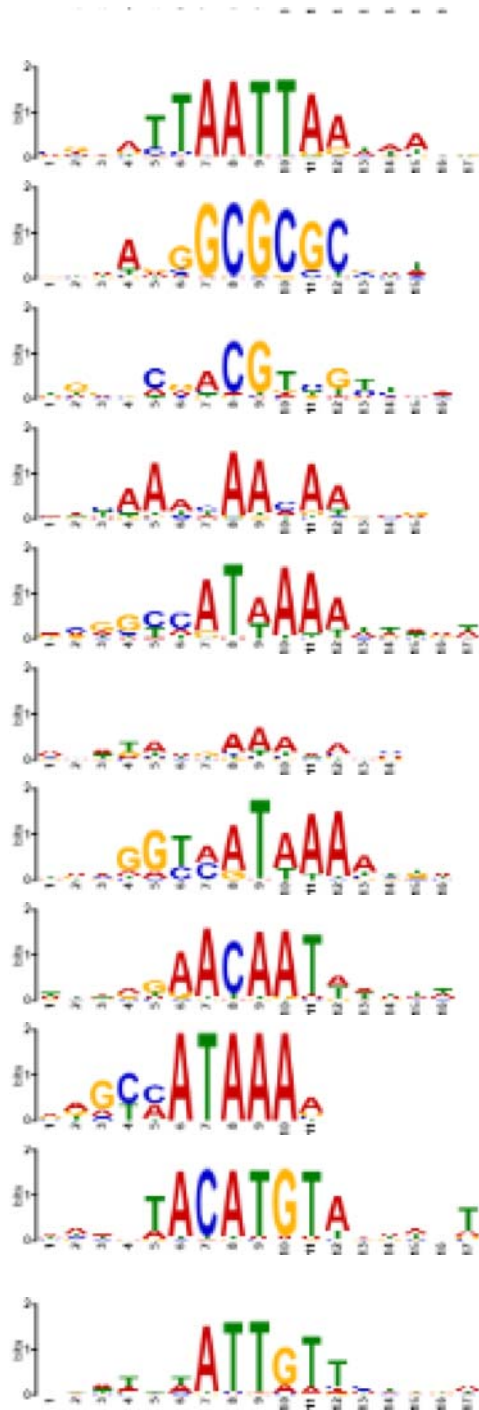
JASPAR CORE 2014

1.00e-31









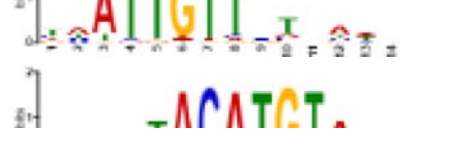

	JASPAR CORE 2014 vertebrates	MA0131.1	HINFP	1.08e-30	6.36e-28
	uniprobe mouse	UP00105_1	Pou3f4_3773.1	1.19e-30	7.03e-28
	uniprobe mouse	UP00180_1	Hoxd13_2356.1	2.33e-30	1.38e-27
	uniprobe mouse	UP00061_1	Foxl1_primary	3.12e-30	1.84e-27
	uniprobe mouse	UP00084_1	Gmeb1_primary	3.47e-29	2.05e-26
	uniprobe mouse	UP00168_1	Hoxd8_2644.1	1.85e-28	1.09e-25
	uniprobe mouse	UP00059_1	Arid5a_primary	7.47e-28	4.41e-25
	uniprobe mouse	UP00061_2	Foxl1_secondary	2.02e-27	1.19e-24
	uniprobe mouse	UP00158_1	Pou1f1_3818.1	2.44e-27	1.44e-24
	JASPAR CORE 2014 vertebrates	MA0041.1	Foxd3	2.45e-27	1.45e-24
	JASPAR CORE 2014 vertebrates	MA0052.2	MEF2A	1.66e-26	9.83e-24
	uniprobe mouse	UP00129_1	Pou3f1_3819.1	3.10e-27	1.83e-23

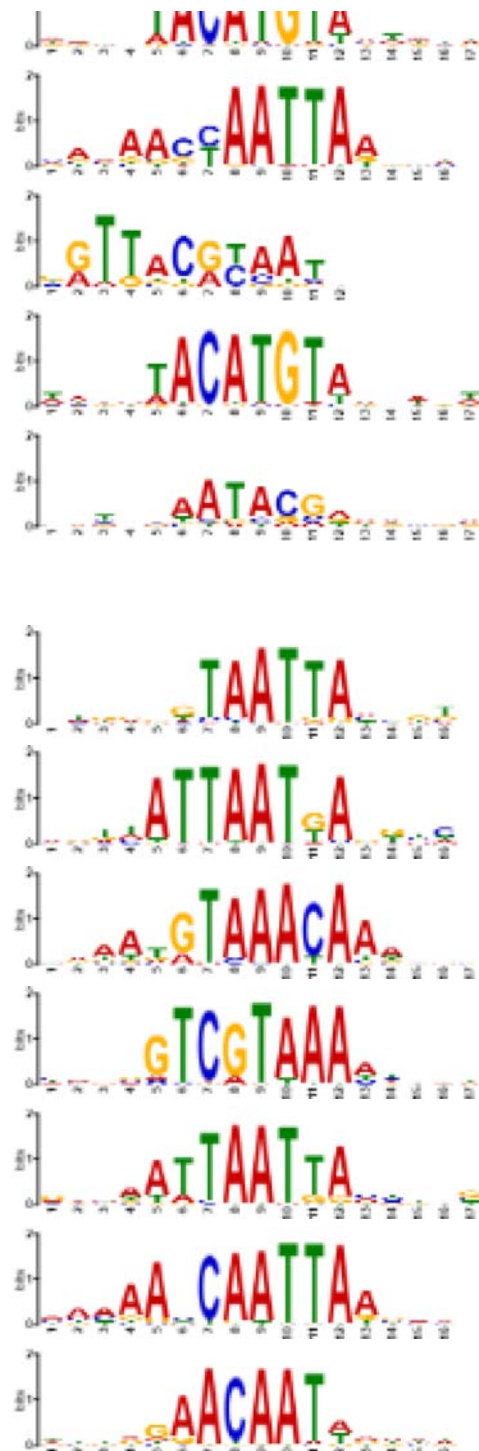


uniprobe mouse	UP00129_1	Pou2f1_3019.1	26	1.99e-23
uniprobe mouse	UP00130_1	Lhx3_3431.1	6.06e-26	3.58e-23
uniprobe mouse	UP00260_1	Hoxc6_3954.2	1.18e-25	6.95e-23
uniprobe mouse	UP00072_1	IRC900814_primary	1.22e-25	7.21e-23
uniprobe mouse	UP00016_1	Sry_primary	2.27e-25	1.34e-22
uniprobe mouse	UP00072_2	IRC900814_secondary	2.30e-25	1.36e-22
JASPAR CORE 2014 vertebrates	MA0151.1	ARID3A	3.39e-25	2.01e-22
uniprobe mouse	UP00064_1	Sox18_primary	1.44e-24	8.49e-22
uniprobe mouse	UP00194_1	Irx4_2242.3	2.41e-24	1.42e-21
uniprobe mouse	UP00134_1	Hoxb13_3479.1	3.88e-24	2.29e-21
uniprobe mouse	UP00212_1	Lhx5_2279.1	4.20e-24	2.48e-21
uniprobe mouse	UP00254_1	Pou2f1_3081.2	8.45e-24	4.99e-21

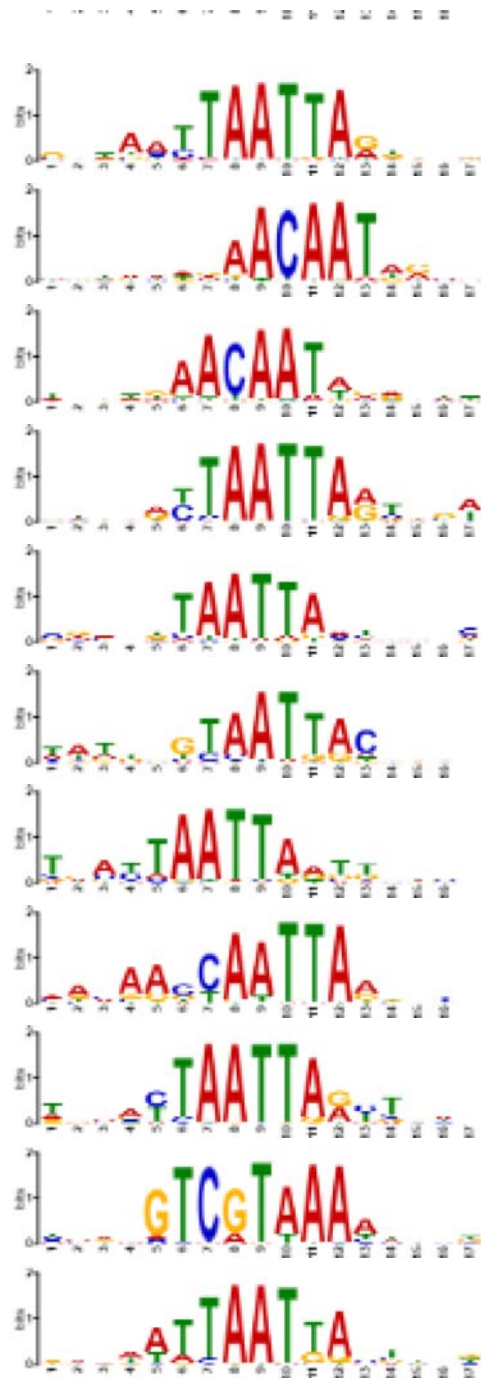


uniprobe mouse	UP00262_1	Lhx1_2240.2	1.85e-23	1.09e-20
uniprobe mouse	UP00003_1	E2F3_primary	3.75e-23	2.22e-20
uniprobe mouse	UP00084_2	Gmeb1_secondary	6.84e-23	4.04e-20
uniprobe mouse	UP00037_1	Zfp105_primary	1.15e-22	6.77e-20
uniprobe mouse	UP00213_1	Hoxa9_2622.2	1.18e-22	6.95e-20
uniprobe mouse	UP00097_2	Mtf1_secondary	1.18e-22	6.95e-20
uniprobe mouse	UP00240_1	Cdx1_2245.1	1.39e-22	8.21e-20
uniprobe mouse	UP00096_1	Sox13_primary	1.40e-22	8.30e-20
JASPAR CORE 2014 vertebrates	MA0465.1	CDX2	1.99e-22	1.18e-19
uniprobe mouse	UP00150_1	Irx6_2623.2	2.09e-22	1.23e-19
uniprobe mouse	UP00051_1	Sox8_primary	2.87e-22	1.69e-19








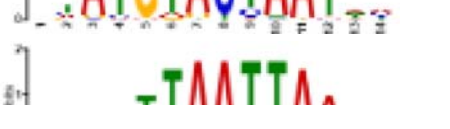
	uniprobe mouse	UP00001_1	E2F2_primary	3.65e-22	2.15e-19
	uniprobe mouse	UP00014_1	Sox17_primary	1.59e-21	9.38e-19
	uniprobe mouse	UP00135_1	Hoxc12_3480.1	2.14e-21	1.26e-18
	uniprobe mouse	UP00250_1	Irx5_2385.1	3.64e-21	2.15e-18
	JASPAR CORE 2014 vertebrates	MA0497.1	MEF2C	4.68e-21	2.77e-18
	uniprobe mouse	UP00133_1	Cdx2_4272.1	5.77e-21	3.41e-18
	uniprobe mouse	UP00218_1	Dbx2_3487.1	6.81e-21	4.03e-18
	uniprobe mouse	UP00073_1	Foxa2_primary	6.98e-21	4.12e-18
	JASPAR CORE 2014 vertebrates	MA0075.1	Prrx2	8.00e-21	4.73e-18
	uniprobe mouse	UP00069_1	Sox1_primary	1.12e-20	6.62e-18
	uniprobe mouse	UP00101_1	Sox12_primary	1.67e-20	9.90e-18
	uniprobe mouse	UP00223_1	Trx3_2226.1	3.82e-20	2.26e-17

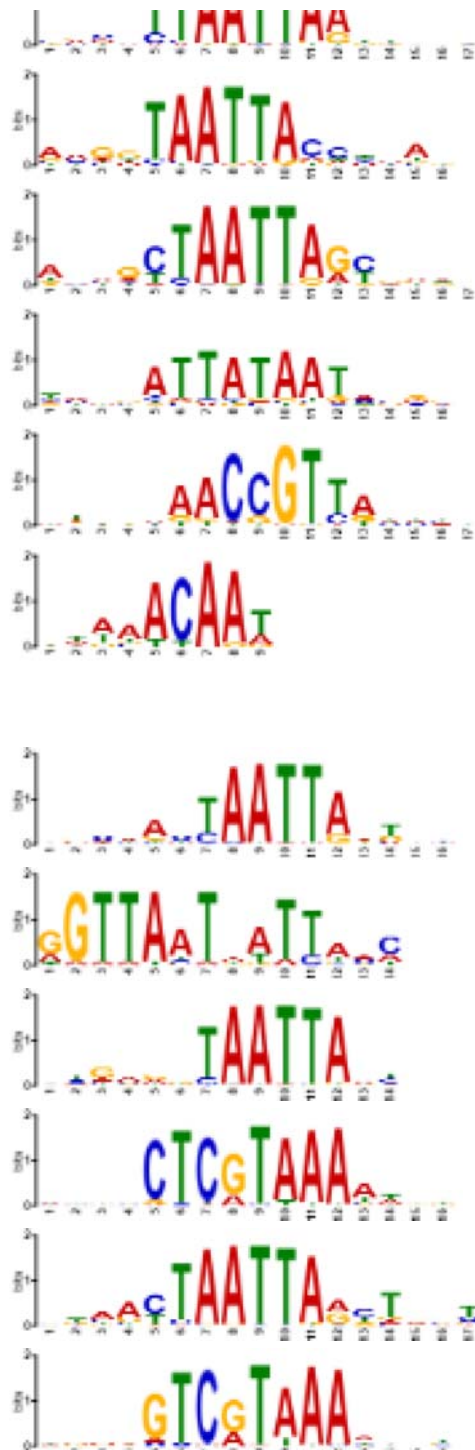


uniprobe mouse	UP00229_1	Hlx3_2229.1	20	2.15e-17
uniprobe mouse	UP00171_1	Msx3_3206.1	8.61e-20	5.09e-17
JASPAR CORE 2014 vertebrates	MA0043.1	HLF	1.41e-19	8.32e-17
uniprobe mouse	UP00236_1	Irx2_0900.3	3.04e-19	1.80e-16
uniprobe mouse	UP00059_2	Arid5a_secondary	4.57e-19	2.70e-16
uniprobe mouse	UP00242_1	Hoxc8_3429.2	5.23e-19	3.09e-16
uniprobe mouse	UP00118_1	Pou4f3_2791.1	8.54e-19	5.04e-16
uniprobe mouse	UP00025_1	Foxk1_primary	1.57e-18	9.26e-16
uniprobe mouse	UP00177_1	Hoxd12_3481.1	2.84e-18	1.68e-15
uniprobe mouse	UP00200_1	Nkx6-1_2825.1	4.69e-18	2.77e-15
uniprobe mouse	UP00145_1	Barhl2_3868.1	5.06e-18	2.99e-15
uniprobe mouse	UP00091_1	Sox5_primary	5.71e-18	3.37e-15

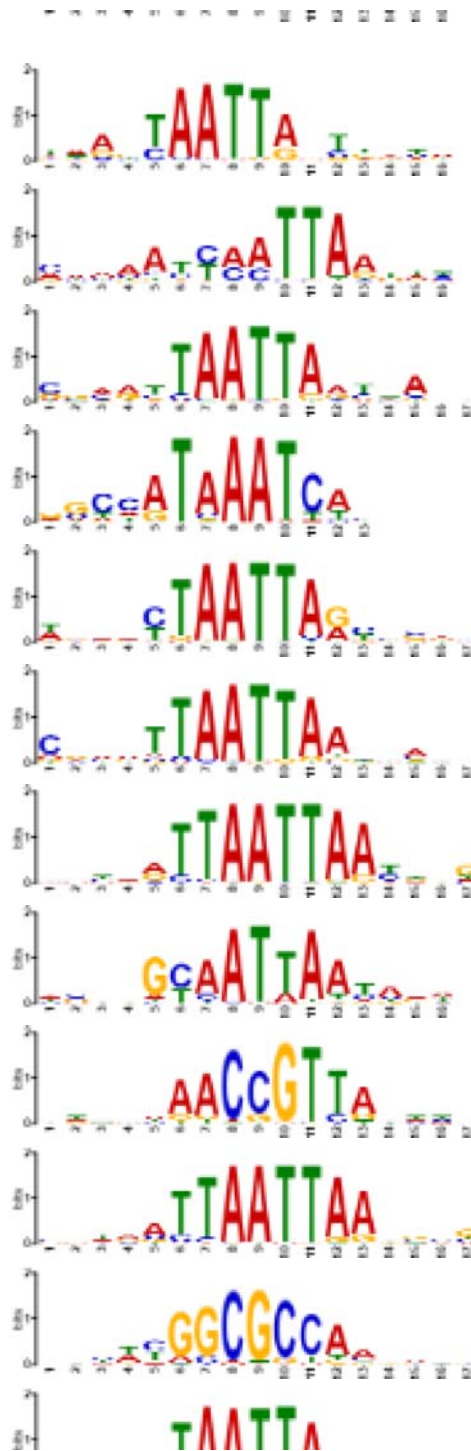


uniprobe mouse	UP00128_1	Pou3f2_2824.1	1.43e-17	8.47e-15
uniprobe mouse	UP00034_1	Sox7_primary	1.67e-17	9.89e-15
uniprobe mouse	UP00075_1	Sox15_primary	4.49e-17	2.66e-14
uniprobe mouse	UP00251_1	Esx1_3124.2	5.27e-17	3.12e-14
uniprobe mouse	UP00164_1	Hoxa7_2668.2	6.95e-17	4.11e-14
uniprobe mouse	UP00259_1	Hoxb6_3428.2	8.56e-17	5.06e-14
uniprobe mouse	UP00224_1	Pax6_3838.3	8.78e-17	5.19e-14
uniprobe mouse	UP00166_1	Barhl1_2590.2	1.76e-16	1.04e-13
uniprobe mouse	UP00108_1	Alx3_3418.2	1.86e-16	1.10e-13
uniprobe mouse	UP00117_1	Hoxd11_3873.1	3.42e-16	2.02e-13
uniprobe mouse	UP00238_1	Nkx6-3_3446.1	7.32e-16	4.33e-13

	uniprobe mouse	UP00173_1	Hoxc13_3127.1	7.55e-16	4.46e-13
	uniprobe mouse	UP00246_1	Hoxa11_2218.1	1.00e-15	5.91e-13
	uniprobe mouse	UP00235_1	Hoxc11_3718.2	1.27e-15	7.48e-13
	uniprobe mouse	UP00030_2	Sox11_secondary	2.23e-15	1.32e-12
	uniprobe mouse	UP00248_1	Pax7_3783.1	3.71e-15	2.19e-12
	uniprobe mouse	UP00207_1	Hoxb9_3413.1	3.72e-15	2.20e-12
	uniprobe mouse	UP00200_2	Nkx6-1_2825.2	4.87e-15	2.88e-12
	JASPAR CORE 2014 vertebrates	MA0063.1	Nkx2-5	6.74e-15	3.99e-12
	uniprobe mouse	UP00172_1	Prop1_3949.1	9.94e-15	5.88e-12
	uniprobe mouse	UP00223_1	Irx3_0920.1	1.13e-14	6.69e-12
	uniprobe mouse	UP00082_1	Zfp187_primary	1.42e-14	8.40e-12
	uniprobe mouse	UP00209_2	Cart1_1275.1	1.67e-14	9.85e-12



uniprobe mouse	UP00299_1	Sox1_1273.1	14	3.00e-12
uniprobe mouse	UP00182_1	Hoxa6_1040.1	2.40e-14	1.42e-11
uniprobe mouse	UP00136_1	Prrx2_3072.1	2.89e-14	1.71e-11
uniprobe mouse	UP00023_2	Sox30_secondary	3.84e-14	2.27e-11
uniprobe mouse	UP00092_1	Myb_primary	9.14e-14	5.40e-11
JASPAR CORE 2014 vertebrates	MA0084.1	SRY	9.25e-14	5.47e-11
uniprobe mouse	UP00234_1	Msx1_3031.2	9.72e-14	5.74e-11
JASPAR CORE 2014 vertebrates	MA0046.1	HNF1A	1.10e-13	6.53e-11
uniprobe mouse	UP00202_1	Dlx1_1741.2	2.73e-13	1.61e-10
uniprobe mouse	UP00183_1	Hoxa13_3126.1	7.31e-13	4.32e-10
uniprobe mouse	UP00266_1	Prrx1_3442.1	8.58e-13	5.07e-10
uniprobe mouse	UP00245_1	Hoxc10_2779.2	9.29e-13	5.49e-10



uniprobe mouse	UP00151_1	Barx2_3447.2	1.25e-12	7.38e-10
uniprobe mouse	UP00170_1	Isl2_3430.1	1.34e-12	7.93e-10
uniprobe mouse	UP00252_1	Hoxc5_2630.2	1.71e-12	1.01e-9
JASPAR CORE 2014 vertebrates	MA0485.1	Hoxc9	1.88e-12	1.11e-9
uniprobe mouse	UP00247_1	Pax4_3989.2	2.10e-12	1.24e-9
uniprobe mouse	UP00113_1	Hoxc4_3491.1	2.31e-12	1.36e-9
uniprobe mouse	UP00237_1	Otp_3496.1	2.86e-12	1.69e-9
uniprobe mouse	UP00263_1	Hoxb8_3780.2	3.45e-12	2.04e-9
uniprobe mouse	UP00081_1	Mybl1_primary	4.93e-12	2.92e-9
uniprobe mouse	UP00142_1	Uncx4.1_2281.2	6.91e-12	4.09e-9
uniprobe mouse	UP00003_2	E2F3_secondary	8.56e-12	5.06e-9
			1.09e-	



uniprobe mouse

[UP00141_1](#)

Vsx1_1728.1

1.00e-11

6.42e-9



uniprobe mouse

[UP00126_1](#)

Dlx2_2273.2

1.12e-11

6.59e-9



uniprobe mouse

[UP00206_1](#)

Hoxb7_3953.1

1.27e-11

7.52e-9



JASPAR CORE 2014 vertebrates

[MA0031.1](#)

FOXD1

1.61e-11

9.54e-9



JASPAR CORE 2014 vertebrates

[MA0040.1](#)

Foxq1

2.22e-11

1.31e-8



JASPAR CORE 2014 vertebrates

[MA0042.1](#)

FOXI1

2.57e-11

1.52e-8



uniprobe mouse

[UP00149_1](#)

Phox2b_3948.1

4.31e-11

2.55e-8



uniprobe mouse

[UP00152_1](#)

Arx_1738.2

5.48e-11

3.24e-8



uniprobe mouse

[UP00167_1](#)

En1_3123.2

6.60e-11

3.90e-8



uniprobe mouse

[UP00063_2](#)

Hoxa3_secondary

6.77e-11

4.00e-8



uniprobe mouse

[UP00039_1](#)

Foxj3_primary

7.64e-11

4.51e-8














uniprobe mouse

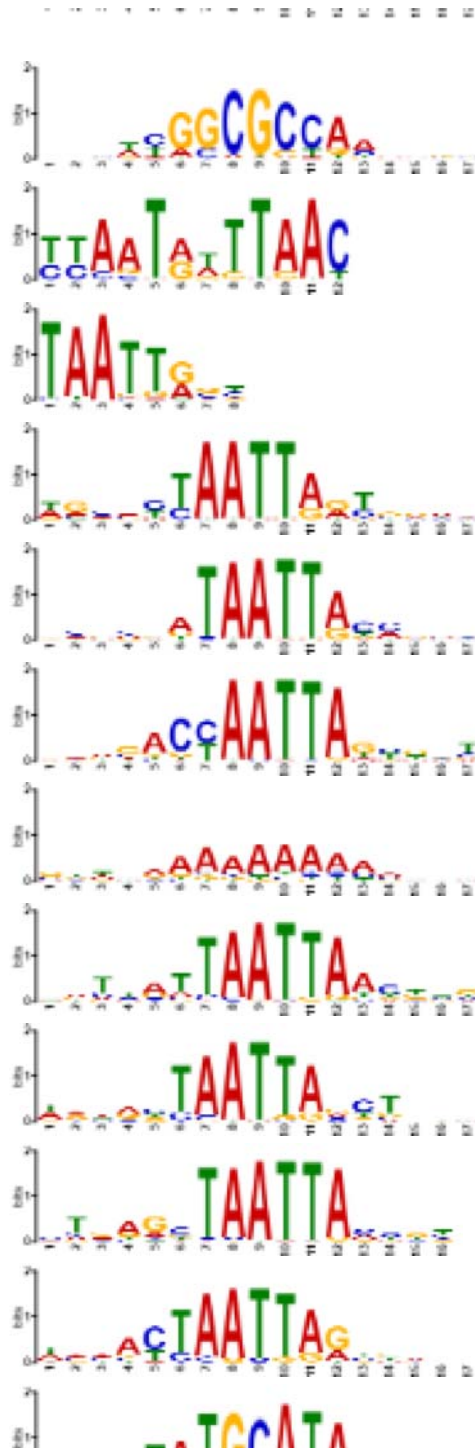
[UP00257_1](#)

Shox2_2641.2

7.79e-11

4.61e-8

	JASPAR CORE 2014 vertebrates	MA0470.1	E2F4	8.68e-11	5.13e-8
	uniprobe mouse	UP00157_1	Hmx3_3490.2	1.20e-10	7.07e-8
	uniprobe mouse	UP00261_1	Lhx4_1719.2	1.83e-10	1.08e-7
	uniprobe mouse	UP00045_2	Mafb_secondary	1.94e-10	1.15e-7
	uniprobe mouse	UP00120_1	Lbx2_3869.2	2.46e-10	1.45e-7
	JASPAR CORE 2014 vertebrates	MA0507.1	POU2F2	2.48e-10	1.47e-7
	JASPAR CORE 2014 vertebrates	MA0108.2	TBP	2.82e-10	1.67e-7
	uniprobe mouse	UP00209_1	Cart1_0997.1	4.04e-10	2.39e-7
	uniprobe mouse	UP00127_1	Gsh2_3990.2	4.59e-10	2.71e-7
	uniprobe mouse	UP00155_1	Hmx2_3424.3	5.02e-10	2.97e-7
	uniprobe mouse	UP00062_2	Sox4_secondary	6.24e-10	3.69e-7



uniprobe mouse	UP00001_2	E2F2_secondary	9.22e-10	5.45e-7
JASPAR CORE 2014 vertebrates	MA0153.1	HNF1B	1.26e-9	7.42e-7
JASPAR CORE 2014 vertebrates	MA0125.1	Nobox	1.28e-9	7.58e-7
uniprobe mouse	UP00163_1	En2_0952.1	2.27e-9	1.34e-6
uniprobe mouse	UP00154_1	Dlx3_1030.1	2.42e-9	1.43e-6
uniprobe mouse	UP00156_1	Msx2_3449.1	2.55e-9	1.51e-6
uniprobe mouse	UP00077_2	Srf_secondary	2.70e-9	1.60e-6
uniprobe mouse	UP00196_1	Hoxa4_3426.1	3.11e-9	1.84e-6
uniprobe mouse	UP00140_1	Hoxd1_3448.1	4.08e-9	2.41e-6
uniprobe mouse	UP00264_1	Hoxa1_3425.1	6.06e-9	3.58e-6
uniprobe mouse	UP00115_1	Lhx2_0953.2	7.03e-9	4.16e-6
uniprobe mouse	UP00211_1	Pou3f3_3235.2	8.40e-9	4.96e-6



uniprobe mouse

[UP00211_1](#)

Rox10_32331.2

9

1.50e-8



uniprobe mouse

[UP00116_1](#)

Rhox6_4251.1

1.07e-8

6.29e-6



uniprobe mouse

[UP00189_1](#)

Hoxa5_3415.1

1.28e-8

7.54e-6



uniprobe mouse

[UP00197_1](#)

Hoxc9_2367.2

1.30e-8

7.71e-6



uniprobe mouse

[UP00020_1](#)

Atf1_primary

1.34e-8

7.95e-6



JASPAR CORE 2014
vertebrates

[MA0087.1](#)

Sox5

1.38e-8

8.17e-6



uniprobe mouse

[UP00110_1](#)

Dlx4_3488.2

1.90e-8

1.12e-5



uniprobe mouse

[UP00012_1](#)

Bbx_primary

2.16e-8

1.28e-5



JASPAR CORE 2014
vertebrates

[MA0004.1](#)

Arnt

2.45e-8

1.45e-5



JASPAR CORE 2014
vertebrates

[MA0468.1](#)

DUX4

2.56e-8

1.51e-5

uniprobe mouse

[UP00144_1](#)

Hoxb4_2627.1

3.29e-8

1.94e-5

uniprobe mouse

[UP00187_1](#)

Alx4_1744.1

3.57e-8

2.11e-5



uniprobe mouse

[UP00164_2](#)

Hoxa7_3750.1

4.28e-8

2.53e-5



JASPAR CORE 2014 vertebrates

[MA0030.1](#)

FOXF2

4.74e-8

2.80e-5



uniprobe mouse

[UP00065_2](#)

Zfp161_secondary

5.00e-8

2.95e-5



uniprobe mouse

[UP00221_1](#)

Phox2a_3947.1

6.86e-8

4.06e-5



JASPAR CORE 2014 vertebrates

[MA0594.1](#)

Hoxa9

6.96e-8

4.11e-5



uniprobe mouse

[UP00077_1](#)

Srf_primary

7.01e-8

4.14e-5



uniprobe mouse

[UP00074_1](#)

Isgf3g_primary

7.71e-8

4.55e-5



uniprobe mouse

[UP00204_1](#)

Gbx1_2883.2

8.50e-8

5.02e-5



uniprobe mouse

[UP00214_1](#)

Hoxb5_3122.2

8.86e-8

5.23e-5



uniprobe mouse

[UP00191_1](#)

Pou2f2_3748.1

1.27e-7

7.51e-5



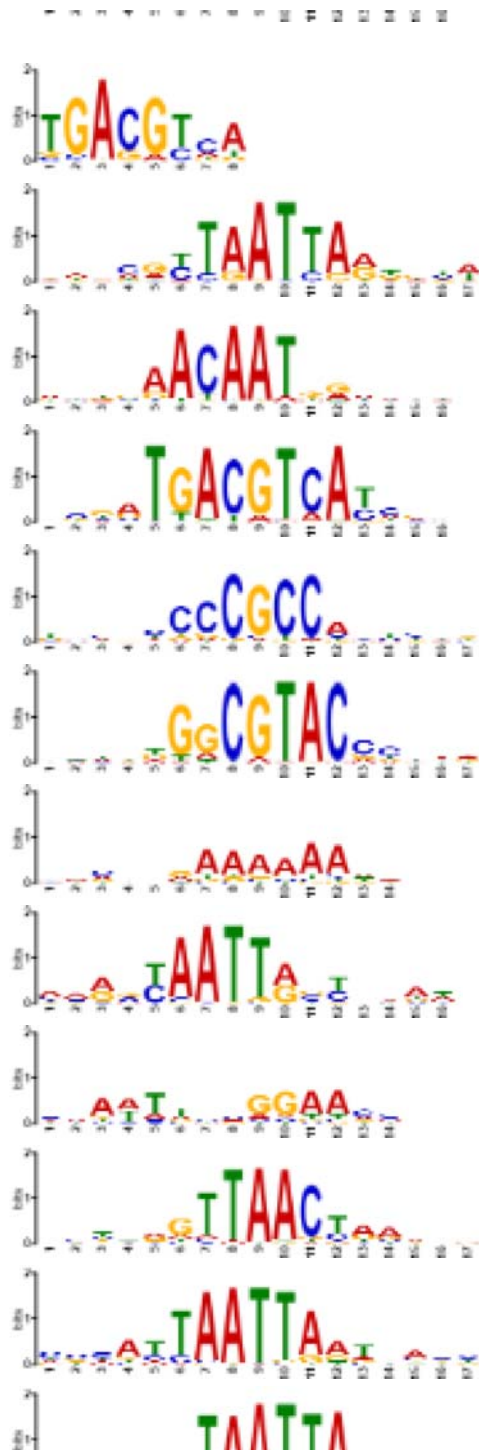
uniprobe mouse

[UP00174_1](#)

Hoxa2_3079.1

2.96e-7

1.75e-4



JASPAR CORE 2014
vertebrates

[MA0018.2](#)

CREB1

2.99e-
7

1.77e-4

uniprobe mouse

[UP00256_1](#)

Lhx6_2272.1

3.39e-
7

2.00e-4

uniprobe mouse

[UP00023_1](#)

Sox30_primary

5.71e-
7

3.37e-4

uniprobe mouse

[UP00103_1](#)

Jundm2_primary

6.53e-
7

3.86e-4

uniprobe mouse

[UP00000_2](#)

Smad3_secondary

8.02e-
7

4.74e-4

uniprobe mouse

[UP00094_1](#)

Zfp128_primary

8.57e-
7

5.06e-4

uniprobe mouse

[UP00028_2](#)

Tcfap2e_secondary

8.97e-
7

5.30e-4

uniprobe mouse

[UP00181_1](#)

Barx1_2877.1

9.60e-
7

5.67e-4

uniprobe mouse

[UP00085_2](#)

Sfpi1_secondary

1.07e-
6

6.34e-4

uniprobe mouse

[UP00089_1](#)

Tcf1_primary

1.43e-
6

8.44e-4

uniprobe mouse

[UP00175_1](#)

Lhx9_3492.1

1.98e-
6

1.17e-3

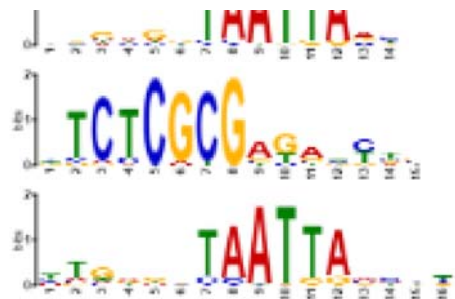
uniprobe mouse

[UP00063_1](#)

Hoxa3_primary

2.01e-

1.19e-3



uniprobe mouse

[UP00000_1](#)

Hoxa9_primary

6

1.15e-3

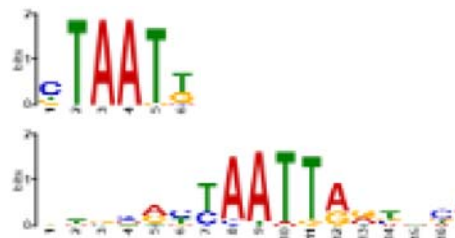
JASPAR CORE 2014 vertebrates

[MA0527.1](#)

ZBTB33

2.64e-6

1.56e-3



uniprobe mouse

[UP00241_1](#)

Hoxd3_1742.2

3.08e-6

1.82e-3

JASPAR CORE 2014 vertebrates

[MA0132.1](#)

Pdx1

3.41e-6

2.01e-3



uniprobe mouse

[UP00139_1](#)

Nkx1-2_3214.1

3.90e-6

2.30e-3

JASPAR CORE 2014 vertebrates

[MA0158.1](#)

HOXA5

4.54e-6

2.68e-3



uniprobe mouse

[UP00124_1](#)

Ipf1_3815.1

4.67e-6

2.76e-3



uniprobe mouse

[UP00179_1](#)

Pou2f3_3986.2

5.08e-6

3.00e-3



uniprobe mouse

[UP00040_1](#)

Irf5_primary

6.31e-6

3.72e-3



JASPAR CORE 2014 vertebrates

[MA0032.1](#)

FOXC1

8.08e-6

4.76e-3



uniprobe mouse

[UP00041_1](#)

Foxj1_primary

1.02e-5

6.03e-3














uniprobe mouse

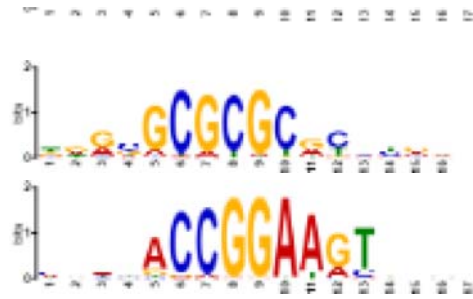
[UP00233_1](#)

Meox1_2310.2

1.07e-5

6.29e-3

	uniprobe mouse	UP00138_1	Bsx_3483.2	1.17e-5	6.87e-3
	uniprobe mouse	UP00215_1	Vax1_3499.1	1.70e-5	9.99e-3
	uniprobe mouse	UP00243_1	Isx_3445.1	1.75e-5	1.03e-2
	uniprobe mouse	UP00018_1	Irf4_primary	2.05e-5	1.21e-2
	uniprobe mouse	UP00391_1	Hoxa3_2783.2	2.07e-5	1.22e-2
	JASPAR CORE 2014 vertebrates	MA0259.1	HIF1A::ARNT	2.32e-5	1.36e-2
	uniprobe mouse	UP00178_1	Og2x_3719.1	2.49e-5	1.46e-2
	uniprobe mouse	UP00025_2	Foxk1_secondary	3.16e-5	1.85e-2
	uniprobe mouse	UP00253_1	Rax_3443.1	4.11e-5	2.40e-2
	uniprobe mouse	UP00390_1	Tcf1_2666.2	5.14e-5	2.99e-2
	uniprobe mouse	UP00104_1	Hmx1_3423.1	5.57e-5	3.24e-2



uniprobe mouse

[UP00065_1](#)

Zfp161_primary

5.72e-5

3.32e-2

uniprobe mouse

[UP00013_1](#)

Gabpa_primary

7.50e-5

4.33e-2

INPUT FILES

Sequences

Primary Sequences	Number	Control Sequences	Number
ud300expr.fa	6525	ud300nonexpr.fa	15480

Motifs

Database	Source	Motif Count
JASPAR CORE 2014 vertebrates	db/JASPAR/JASPAR_CORE_2014 Vertebrates.meme	205
uniprobe mouse	db/MOUSE/uniprobe_mouse.meme	386
JASPAR CORE 2014 vertebrates	db/JASPAR/JASPAR_CORE_2014 Vertebrates.meme	205
uniprobe mouse	db/MOUSE/uniprobe_mouse.meme	386

AME version

4.11.24.11.2 (Release date: Thu May 05 14:58:55 2016 -0700 Thu May 05 14:58:55 2016 -0700)
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Command line summary

```
/home/meme/meme_4.11.2/bin/ame --verbose 1 --oc . --control ud300nonexpr.fa --bgformat 2 --bgfile background.model --scoring avg --method ranksum --pvalue-report-threshold 0.05 ud300expr.fa db/JASPAR/JASPAR_CORE_2014 Vertebrates.meme db/MOUSE/uniprobe_mouse.meme
```

For further information on how to interpret these results or to get a copy of the MEME software please access <http://meme-suite.org>.

If you use AME in your research, please cite the following paper:

Robert McLeay and Timothy L. Bailey, "Motif Enrichment Analysis: A unified framework and method evaluation", *BMC Bioinformatics*, **11**:165, 2010, doi:10.1186/1471-2105-11-165. [\[full text\]](#)

[ENRICHED MOTIFS](#) | [INPUT FILES](#) | [PROGRAM INFORMATION](#)

ENRICHED MOTIFS

Fixed partition size: number of primary sequences (6525)

Sequence motif score: avg_odds

Background model source: file background.model

Background model frequencies: 0.291,0.209,0.209,0.291

Total pseudocount added to a motif column: 0.25

Statistical test: Wilcoxon rank-sum test

Ranksum method: quick

Threshold *p*-value for reporting results: 0.05

Number of multiple tests for Bonferroni correction: #Motifs × #PartitionsTested = 591 × 1 = 591

Sequence motif score: avg_odds

Background model source: file background.model

Background model frequencies: 0.291,0.209,0.209,0.291


Total pseudocount added to a motif column: 0.25

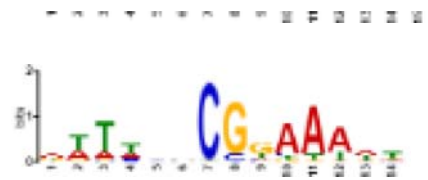










Statistical test: Wilcoxon rank-sum test

Ranksum method: quick

Threshold *p*-value for reporting results: 0.05

Number of multiple tests for Bonferroni correction: #Motifs × #PartitionsTested = 591 × 1 = 591

Logo	Database	ID	Name	<i>P</i> -value	Adjusted <i>p</i> -value
	uniprobe mouse	UP00049_2	Sp100_secondary	2.35e-131	1.39e-128

	uniprobe mouse	UP00049_1	Sp100_primary	2.74e-90	1.62e-87
	uniprobe mouse	UP00001_1	E2F2_primary	1.32e-85	7.78e-83
	uniprobe mouse	UP00003_1	E2F3_primary	8.07e-82	4.77e-79
	JASPAR CORE 2014 vertebrates	MA0131.1	HINFP	1.16e-79	6.87e-77
	uniprobe mouse	UP00029_2	Tbp_secondary	3.44e-71	2.03e-68
	uniprobe mouse	UP00065_2	Zfp161_secondary	1.07e-67	6.34e-65
	uniprobe mouse	UP00084_2	Gmeb1_secondary	5.24e-63	3.09e-60
	JASPAR CORE 2014 vertebrates	MA0527.1	ZBTB33	5.92e-62	3.50e-59
	uniprobe mouse	UP00065_1	Zfp161_primary	3.16e-61	1.87e-58
	uniprobe mouse	UP00092_1	Myb_primary	4.57e-60	2.70e-57
	JASPAR CORE 2014 vertebrates	MA0470.1	E2F4	4.63e-60	2.73e-57



uniprobe mouse

[UP00081_1](#)

Mybl1_primary

2.22e-58

1.31e-55



uniprobe mouse

[UP00084_1](#)

Gmeb1_primary

4.47e-58

2.64e-55



uniprobe mouse

[UP00003_2](#)

E2F3_secondary

1.71e-52

1.01e-49



uniprobe mouse

[UP00390_1](#)

Tcf1_2666.2

1.13e-48

6.68e-46



JASPAR CORE 2014 vertebrates

[MA0259.1](#)

HIF1A::ARNT

1.60e-48

9.47e-46



uniprobe mouse

[UP00001_2](#)

E2F2_secondary

5.83e-48

3.45e-45



JASPAR CORE 2014 vertebrates

[MA0004.1](#)

Arnt

1.86e-44

1.10e-41



uniprobe mouse

[UP00058_2](#)

Tcf3_secondary

1.03e-42

6.10e-40



uniprobe mouse

[UP00100_2](#)

Gata6_secondary

1.67e-41

9.84e-39













uniprobe mouse

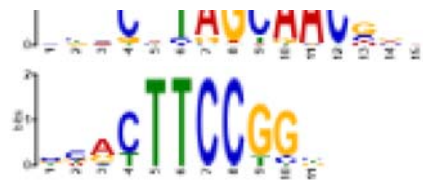
[UP00072_2](#)

IRC900814_secondary

5.34e-41

3.16e-38

	unprobe mouse	UP00012_2	Bbx_secondary	8.47e-41	5.00e-38
	unprobe mouse	UP00089_1	Tcf1_primary	1.53e-40	9.07e-38
	unprobe mouse	UP00000_2	Smad3_secondary	9.46e-40	5.59e-37
	unprobe mouse	UP00060_2	Max_secondary	2.08e-35	1.23e-32
	JASPAR CORE 2014 vertebrates	MA0062.2	GABPA	4.60e-35	2.72e-32
	JASPAR CORE 2014 vertebrates	MA0024.2	E2F1	7.31e-35	4.32e-32
	unprobe mouse	UP00072_1	IRC900814_primary	8.04e-34	4.75e-31
	unprobe mouse	UP00222_1	Tcf2_0913.2	1.25e-33	7.39e-31
	JASPAR CORE 2014 vertebrates	MA0006.1	Arnt::Ahr	2.84e-31	1.68e-28
	unprobe mouse	UP00013_1	Gabpa_primary	3.62e-31	2.14e-28
	JASPAR CORE 2014 vertebrates	MA0506.1	NRF1	5.24e-31	3.10e-28
	unprobe mouse	UP00076_1	Rfxdc2_primary	6.03e-31	3.56e-28



unprobe mouse

[UP00073_1](#)

KRAB2_primary

31

3.33e-20

JASPAR CORE 2014
vertebrates

[MA0076.2](#)

ELK4

5.96e-
28

3.52e-25



unprobe mouse

[UP00050_2](#)

Bhlhb2_secondary

3.61e-
27

2.13e-24



unprobe mouse

[UP00177_1](#)

Hoxd12_3481.1

1.62e-
26

9.60e-24



unprobe mouse

[UP00050_1](#)

Bhlhb2_primary

1.67e-
26

9.86e-24



JASPAR CORE 2014
vertebrates

[MA0059.1](#)

MYC::MAX

4.00e-
26

2.36e-23



unprobe mouse

[UP00117_1](#)

Hoxd11_3873.1

2.43e-
25

1.43e-22



unprobe mouse

[UP00015_1](#)

Ehf_primary

6.13e-
25

3.63e-22



unprobe mouse

[UP00135_1](#)

Hoxc12_3480.1

7.71e-
24

4.56e-21



unprobe mouse

[UP00056_1](#)

Rfx4_primary

1.02e-
23

6.03e-21



JASPAR CORE 2014
vertebrates

[MA0028.1](#)

ELK1

1.12e-
20

6.65e-18



unprobe mouse

[UP00093_2](#)

Klf7_secondary

1.33e-
20

7.88e-18



JASPAR CORE 2014
vertebrates

[MA0030.1](#)

FOXF2

9.67e-
20

5.71e-17



JASPAR CORE 2014
vertebrates

[MA0593.1](#)

FOXP2

8.79e-
18

5.20e-15



uniprobe mouse

[UP00048_2](#)

Rara_secondary

2.47e-
17

1.46e-14



uniprobe mouse

[UP00090_1](#)

Elf3_primary

2.60e-
17

1.54e-14



JASPAR CORE 2014
vertebrates

[MA0031.1](#)

FOXD1

2.60e-
17

1.54e-14



uniprobe mouse

[UP00183_1](#)

Hoxa13_3126.1

8.07e-
17

4.77e-14



uniprobe mouse

[UP00235_1](#)

Hoxc11_3718.2

1.22e-
16

7.20e-14



JASPAR CORE 2014
vertebrates

[MA0117.1](#)

Mafb

1.22e-
16

7.20e-14



uniprobe mouse

[UP00097_1](#)

Mtf1_primary

2.98e-
16

1.76e-13



uniprobe mouse

[UP00245_1](#)

Hoxc10_2779.2

4.10e-
16

2.42e-13














uniprobe mouse

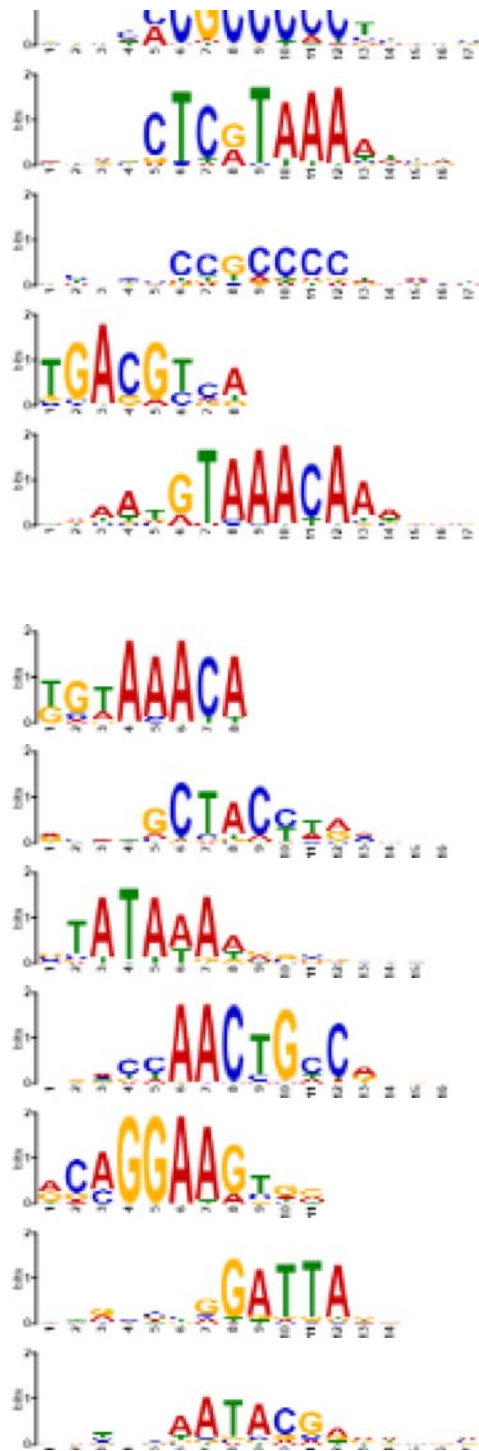
[UP00098_1](#)

Rfx3_primary

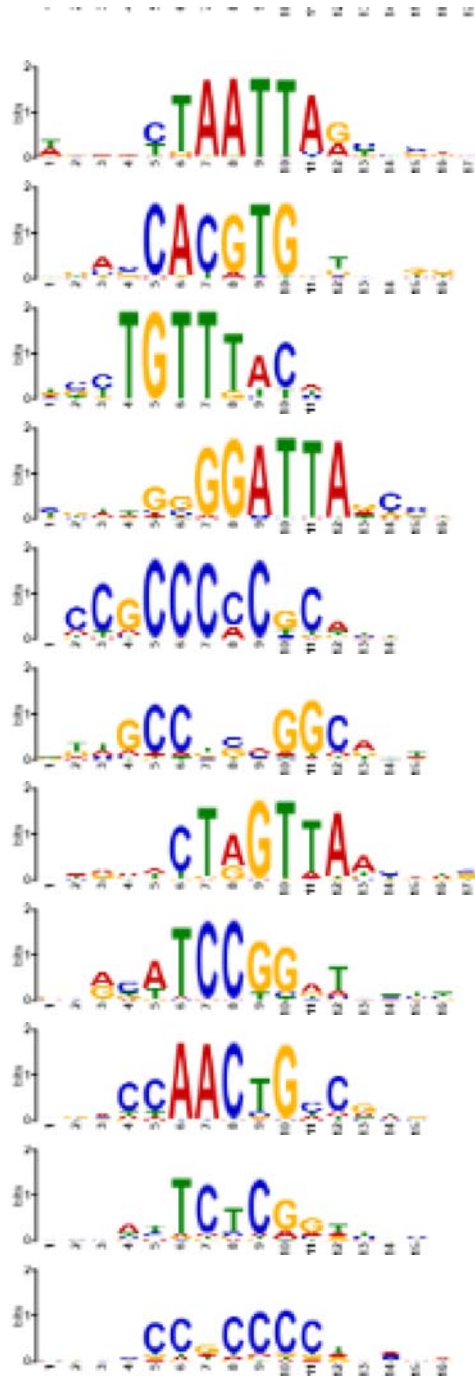
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16

3.96e-13

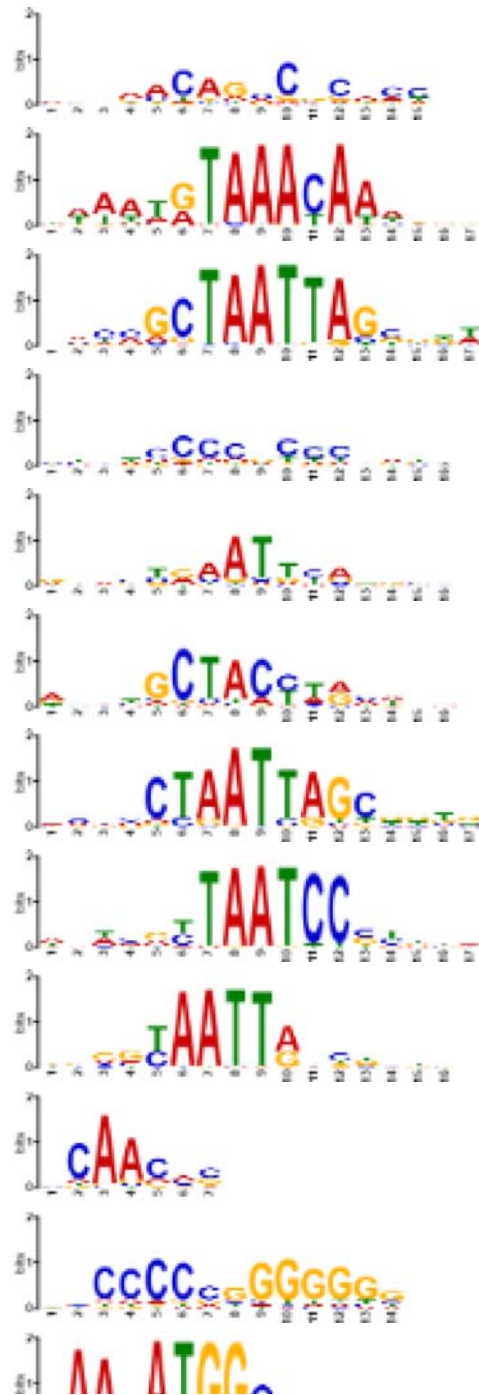
	JASPAR CORE 2014 vertebrates	MA0469.1	E2F3	7.53e-16	4.45e-13
	uniprobe mouse	UP00114_1	Homez_1063.2	9.10e-16	5.38e-13
	uniprobe mouse	UP00246_1	Hoxa11_2218.1	1.68e-15	9.91e-13
	uniprobe mouse	UP00088_1	Plagl1_primary	2.39e-15	1.41e-12
	uniprobe mouse	UP00040_1	Irf5_primary	3.04e-15	1.80e-12
	JASPAR CORE 2014 vertebrates	MA0473.1	ELF1	5.59e-15	3.30e-12
	uniprobe mouse	UP00011_1	Irf6_primary	7.73e-15	4.57e-12
	uniprobe mouse	UP00053_2	Rxra_secondary	9.93e-15	5.87e-12
	uniprobe mouse	UP00018_1	Irf4_primary	1.42e-14	8.38e-12
	uniprobe mouse	UP00002_2	Sp4_secondary	1.73e-14	1.02e-11
	uniprobe mouse	UP00039_1	Foxj3_primary	1.99e-14	1.18e-11
	uniprobe mouse	UP00002_1	Sp4_primary	2.38e-14	1.40e-11



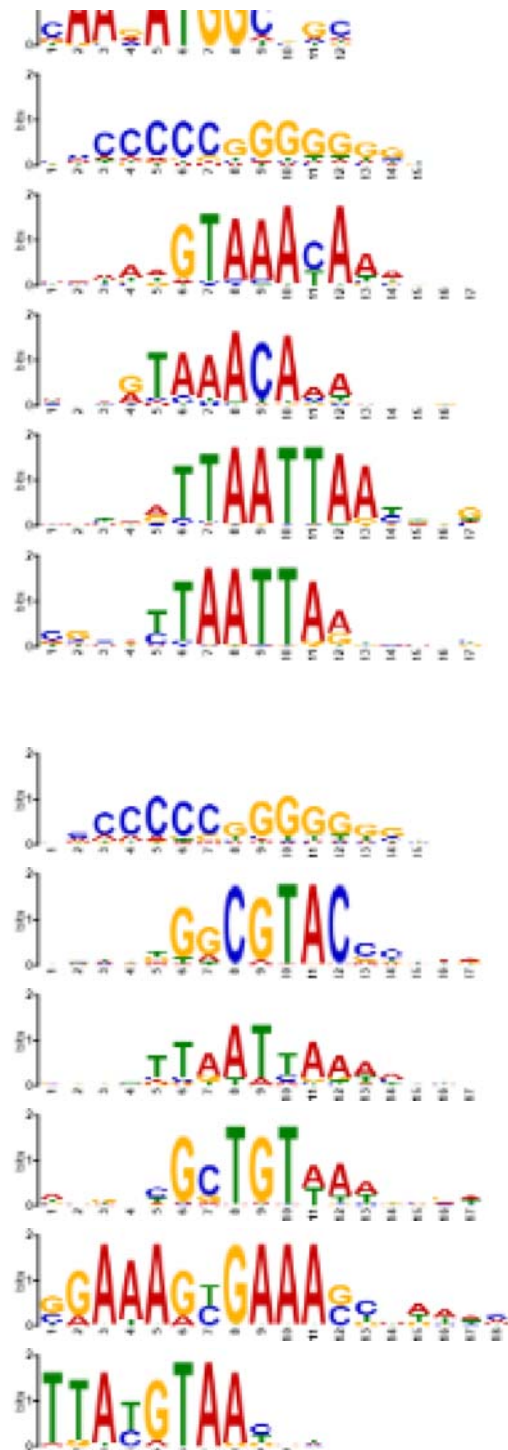
unprobe mouse	UP00002_1	Sp1_primary	14	4.19e-11
unprobe mouse	UP00173_1	Hoxc13_3127.1	1.30e-13	7.67e-11
unprobe mouse	UP00033_2	Zfp410_secondary	1.75e-13	1.04e-10
JASPAR CORE 2014 vertebrates	MA0018.2	CREB1	3.29e-13	1.94e-10
unprobe mouse	UP00025_1	Foxk1_primary	3.38e-13	2.00e-10
JASPAR CORE 2014 vertebrates	MA0157.1	FOXO3	8.57e-13	5.06e-10
unprobe mouse	UP00027_2	Osr1_secondary	9.39e-13	5.55e-10
JASPAR CORE 2014 vertebrates	MA0108.2	TBP	1.58e-12	9.32e-10
unprobe mouse	UP00092_2	Myb_secondary	1.76e-12	1.04e-9
JASPAR CORE 2014 vertebrates	MA0475.1	FLI1	2.11e-12	1.24e-9
unprobe mouse	UP00089_2	Tcf1_secondary	2.77e-12	1.64e-9
unprobe mouse	UP00059_2	Arid5a_secondary	3.82e-12	2.26e-9



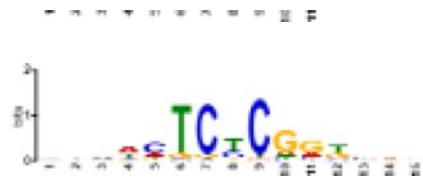
uniprobe mouse	UP00247_1	Pax4_3989.2	7.15e-12	4.23e-9
uniprobe mouse	UP00060_1	Max_primary	9.08e-12	5.37e-9
JASPAR CORE 2014 vertebrates	MA0480.1	Foxo1	1.01e-11	5.97e-9
uniprobe mouse	UP00176_1	Crx_3485.1	1.93e-11	1.14e-8
uniprobe mouse	UP00007_1	Egr1_primary	2.00e-11	1.18e-8
uniprobe mouse	UP00010_2	Tcfap2b_secondary	2.99e-11	1.77e-8
uniprobe mouse	UP00161_1	Hmbox1_2674.1	5.59e-11	3.30e-8
uniprobe mouse	UP00038_1	Spdef_primary	6.61e-11	3.91e-8
uniprobe mouse	UP00081_2	Mybl1_secondary	1.08e-10	6.40e-8
uniprobe mouse	UP00018_2	Irf4_secondary	1.15e-10	6.81e-8
uniprobe mouse	UP00043_2	Bcl6b_secondary	1.82e-10	1.08e-7



uniprobe mouse	UP00036_2	Myf6_secondary	2.05e-10	1.21e-7
uniprobe mouse	UP00061_1	Foxl1_primary	2.23e-10	1.32e-7
uniprobe mouse	UP00132_1	Evx2_2645.3	3.47e-10	2.05e-7
uniprobe mouse	UP00099_2	Ascl2_secondary	5.37e-10	3.17e-7
uniprobe mouse	UP00064_2	Sox18_secondary	1.43e-9	8.48e-7
uniprobe mouse	UP00052_2	Osr2_secondary	2.05e-9	1.21e-6
uniprobe mouse	UP00184_1	Lhx8_2247.2	2.57e-9	1.52e-6
uniprobe mouse	UP00112_1	Gsc_2327.3	2.97e-9	1.76e-6
uniprobe mouse	UP00230_1	Dlx5_3419.2	3.97e-9	2.34e-6
JASPAR CORE 2014 vertebrates	MA0133.1	BRCA1	4.06e-9	2.40e-6
uniprobe mouse	UP00102_1	Zic1_primary	4.51e-9	2.66e-6
JASPAR CORE 2014	MA0095.2	YY1	5.22e-9	3.08e-6



vertebrates	MA0025.1	IRF2	9	3.88e-8
uniprobe mouse	UP00006_1	Zic3_primary	6.33e-9	3.74e-6
uniprobe mouse	UP00073_1	Foxa2_primary	6.58e-9	3.89e-6
uniprobe mouse	UP00041_1	Foxj1_primary	7.98e-9	4.72e-6
uniprobe mouse	UP00237_1	Otp_3496.1	1.05e-8	6.23e-6
uniprobe mouse	UP00187_1	Alx4_1744.1	1.15e-8	6.80e-6
uniprobe mouse	UP00057_1	Zic2_primary	1.24e-8	7.34e-6
uniprobe mouse	UP00094_1	Zfp128_primary	1.60e-8	9.45e-6
uniprobe mouse	UP00078_1	Arid3a_primary	1.65e-8	9.76e-6
uniprobe mouse	UP00193_1	Rhox11_1765.2	3.31e-8	1.95e-5
JASPAR CORE 2014 vertebrates	MA0051.1	IRF2	3.88e-8	2.29e-5
JASPAR CORE 2014 vertebrates	MA0025.1	NFIL3	4.21e-8	2.49e-5



uniprobe mouse

[UP00011_2](#)

Irf6_secondary

6.44e-8

3.80e-5



JASPAR CORE 2014 vertebrates

[MA0067.1](#)

Pax2

7.27e-8

4.30e-5



JASPAR CORE 2014 vertebrates

[MA0474.1](#)

Erg

8.33e-8

4.92e-5



JASPAR CORE 2014 vertebrates

[MA0032.1](#)

FOXC1

1.22e-7

7.18e-5



uniprobe mouse

[UP00086_1](#)

Irf3_primary

1.27e-7

7.52e-5



uniprobe mouse

[UP00193_2](#)

Rhox11_2205.1

1.37e-7

8.09e-5



uniprobe mouse

[UP00093_1](#)

Klf7_primary

1.47e-7

8.68e-5



uniprobe mouse

[UP00054_2](#)

Tcf7_secondary

1.59e-7

9.39e-5



uniprobe mouse

[UP00257_1](#)

Shox2_2641.2

1.82e-7

1.07e-4



uniprobe mouse

[UP00028_1](#)

Tcfap2e_primary

2.19e-7

1.29e-4



uniprobe mouse

[UP00136_1](#)

Prrx2_3072.1

2.67e-7

1.58e-4



2.89e-



uniprobe mouse

[UP00020_1](#)

Atf1_primary

$\frac{1.71e-4}{7}$

1.71e-4



uniprobe mouse

[UP00074_1](#)

Isgf3g_primary

$\frac{2.99e-7}{7}$

1.76e-4



uniprobe mouse

[UP00209_1](#)

Cart1_0997.1

$\frac{3.24e-7}{7}$

1.91e-4



JASPAR CORE 2014 vertebrates

[MA0104.3](#)

Mycn

$\frac{3.77e-7}{7}$

2.23e-4



JASPAR CORE 2014 vertebrates

[MA0014.2](#)

PAX5

$\frac{5.08e-7}{7}$

3.00e-4



JASPAR CORE 2014 vertebrates

[MA0146.2](#)

Zfx

$\frac{5.16e-7}{7}$

3.05e-4



uniprobe mouse

[UP00253_1](#)

Rax_3443.1

$\frac{9.14e-7}{7}$

5.40e-4



uniprobe mouse

[UP00178_1](#)

Og2x_3719.1

$\frac{1.15e-6}{6}$

6.80e-4



uniprobe mouse

[UP00265_1](#)

Pitx3_3497.2

$\frac{1.44e-6}{6}$

8.53e-4



JASPAR CORE 2014 vertebrates

[MA0471.1](#)

E2F6

$\frac{1.75e-6}{6}$

1.04e-3



JASPAR CORE 2014 vertebrates

[MA0069.1](#)

Pax6

$\frac{1.87e-6}{6}$

1.10e-3



uniprobe mouse

[UP00209_2](#)

Cart1_1275.1

$\frac{2.61e-6}{6}$

1.54e-3



uniprobe mouse

[UP00022_2](#)

Zfp740_secondary

2.64e-6

1.56e-3



uniprobe mouse

[UP00104_1](#)

Hmx1_3423.1

3.20e-6

1.89e-3



uniprobe mouse

[UP00109_1](#)

Obox6_3440.2

3.56e-6

2.10e-3



uniprobe mouse

[UP00020_2](#)

Atf1_secondary

3.77e-6

2.22e-3



uniprobe mouse

[UP00009_2](#)

Nr2f2_secondary

4.37e-6

2.58e-3



uniprobe mouse

[UP00164_1](#)

Hoxa7_2668.2

4.37e-6

2.58e-3



JASPAR CORE 2014 vertebrates

[MA0481.1](#)

FOXP1

5.15e-6

3.04e-3



uniprobe mouse

[UP00013_2](#)

Gabpa_secondary

5.21e-6

3.07e-3



uniprobe mouse

[UP00073_2](#)

Foxa2_secondary

6.17e-6

3.64e-3



uniprobe mouse

[UP00141_1](#)

Vsx1_1728.1

8.71e-6

5.14e-3



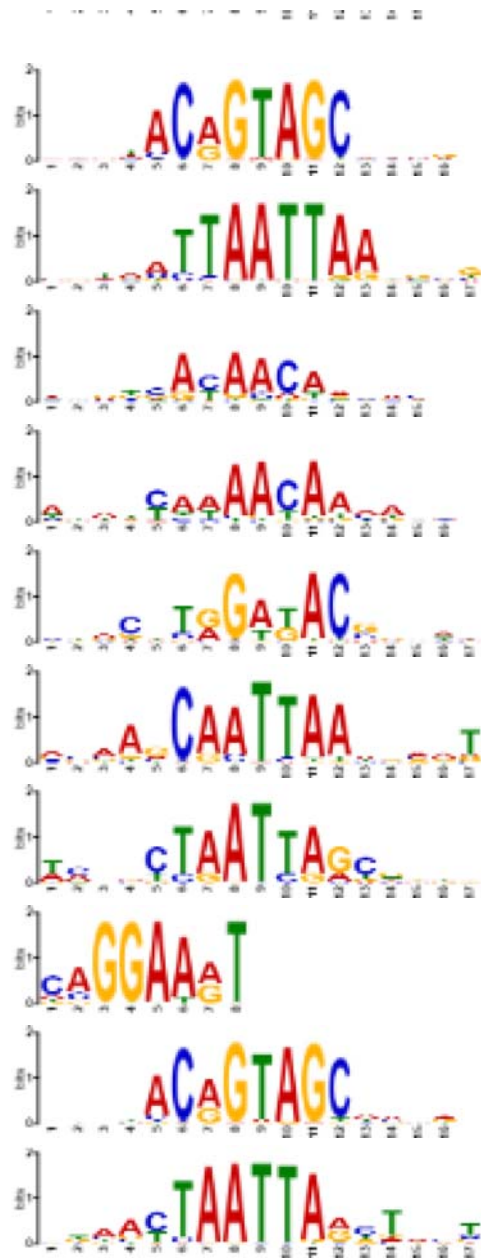
JASPAR CORE 2014 vertebrates

[MA0098.2](#)

Ets1

1.00e-5

5.89e-3



uniprobe mouse	UP00052_1	Osr2_primary	1.11e-5	6.56e-3
uniprobe mouse	UP00142_1	Uncx4.1_2281.2	1.29e-5	7.62e-3
uniprobe mouse	UP00041_2	Foxj1_secondary	1.58e-5	9.27e-3
uniprobe mouse	UP00061_2	Foxl1_secondary	1.69e-5	9.96e-3
uniprobe mouse	UP00076_2	Rfxdc2_secondary	1.96e-5	1.15e-2
uniprobe mouse	UP00155_1	Hmx2_3424.3	2.03e-5	1.19e-2
uniprobe mouse	UP00256_2	Lhx6_3432.1	2.52e-5	1.48e-2
JASPAR CORE 2014 vertebrates	MA0156.1	FEV	2.91e-5	1.70e-2
uniprobe mouse	UP00027_1	Osr1_primary	4.33e-5	2.53e-2
uniprobe mouse	UP00266_1	Prrx1_3442.1	4.44e-5	2.59e-2

INPUT FILES

Sequences

Primary Sequences	Number	Control Sequences	Number	Primary Sequences	Number	Control Sequences	Number
Control Sequences	Number						
ud-300expr.fa	6525	ud-300nonexpr.fa	15480	ud-300expr.fa	6525	ud-300nonexpr.fa	15480

Motifs

Database	Source	Motif Count
JASPAR CORE 2014 vertebrates	db/JASPAR/JASPAR_CORE_2014 Vertebrates.meme	205
uniprobe mouse	db/MOUSE/uniprobe_mouse.meme	386
JASPAR CORE 2014 vertebrates	db/JASPAR/JASPAR_CORE_2014 Vertebrates.meme	205
uniprobe mouse	db/MOUSE/uniprobe_mouse.meme	386

AME version

4.11.24.11.2 (Release date: Thu May 05 14:58:55 2016 -0700Thu May 05 14:58:55 2016 -0700)

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Command line summary

```
/home/meme/meme_4.11.2/bin/ame --verbose 1 --oc . --control ud-300nonexpr.fa --bgformat 2 --bgfile background.model --scoring avg --method ranksum --pvalue-report-threshold 0.05 ud-300expr.fa db/JASPAR/JASPAR_CORE_2014 Vertebrates.meme db/MOUSE/uniprobe_mouse.meme
```

For further information on how to interpret these results or to get a copy of the MEME software please access <http://meme-suite.org>.

If you use AME in your research, please cite the following paper:

Robert McLeay and Timothy L. Bailey, "Motif Enrichment Analysis: A unified framework and method evaluation", *BMC Bioinformatics*, **11**:165, 2010, doi:10.1186/1471-2105-11-165. [\[full text\]](#)

[ENRICHED MOTIFS](#) | [INPUT FILES](#) | [PROGRAM INFORMATION](#)

ENRICHED MOTIFS

Fixed partition size: number of primary sequences (2188)

Sequence motif score: avg_odds

Background model source: file background.model

Background model frequencies: 0.291,0.209,0.209,0.291

Total pseudocount added to a motif column: 0.25

Statistical test: Wilcoxon rank-sum test

Ranksum method: quick

Threshold *p*-value for reporting results: 0.05

Number of multiple tests for Bonferroni correction: #Motifs × #PartitionsTested = 591 × 1 = 591

Sequence motif score: avg_odds

Background model source: file background.model

Background model frequencies: 0.291,0.209,0.209,0.291

Total pseudocount added to a motif column: 0.25

Statistical test: Wilcoxon rank-sum test

Ranksum method: quick

Threshold *p*-value for reporting results: 0.05

Number of multiple tests for Bonferroni correction: #Motifs × #PartitionsTested = 591 × 1 = 591

Logo	Database	ID	Name	<i>p</i> -value	Adjusted <i>p</i> -value
	uniprobe mouse	UP00024_2	Glis2_secondary	3.45e-7	2.04e-4



uniprobe mouse

[UP00029_1](#)

Tbp_primary

2.47e-6

1.46e-3



JASPAR CORE 2014 vertebrates

[MA0033.1](#)

FOXL1

8.40e-6

4.95e-3



uniprobe mouse

[UP00071_1](#)

Sox21_primary

1.21e-5

7.14e-3



uniprobe mouse

[UP00255_1](#)

Dbx1_3486.1

2.03e-5

1.20e-2



JASPAR CORE 2014 vertebrates

[MA0075.1](#)

Prrx2

2.31e-5

1.35e-2



JASPAR CORE 2014 vertebrates

[MA0497.1](#)

MEF2C

2.72e-5

1.59e-2



uniprobe mouse

[UP00004_1](#)

Sox14_primary

3.36e-5

1.97e-2



uniprobe mouse

[UP00094_2](#)

Zfp128_secondary

4.50e-5

2.62e-2



uniprobe mouse

[UP00077_1](#)

Srf_primary

5.77e-5

3.35e-2



uniprobe mouse

[UP00054_2](#)

Tcf7_secondary

5.86e-5

3.40e-2



JASPAR CORE 2014 vertebrates

[MA0052.2](#)

MEF2A

8.00e-5

4.62e-2

INPUT FILES

Sequences

Primary Sequences	Number	Control Sequences	Number	Primary Sequences	Number	Control Sequences	Number
Control Sequences				ud300down.fa	2188	ud300restdown.fa	4337
ud300down.fa	2188	ud300restdown.fa	4337	ud300down.fa	2188	ud300restdown.fa	4337

Motifs

Database	Source	Motif Count
JASPAR CORE 2014 vertebrates	db/JASPAR/JASPAR_CORE_2014 Vertebrates.meme	205
uniprobe mouse	db/MOUSE/uniprobe_mouse.meme	386
JASPAR CORE 2014 vertebrates	db/JASPAR/JASPAR_CORE_2014 Vertebrates.meme	205
uniprobe mouse	db/MOUSE/uniprobe_mouse.meme	386

AME version

4.11.24.11.2 (Release date: Thu May 05 14:58:55 2016 -0700Thu May 05 14:58:55 2016 -0700)
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Command line summary

```
/home/meme/meme_4.11.2/bin/ame --verbose 1 --oc . --control ud300restdown.fa --bgformat 2 --bgfile background.model --scoring avg --method ranksum --pvalue-report-threshold 0.05 ud300down.fa db/JASPAR/JASPAR_CORE_2014_Vertebrates.meme db/MOUSE/uniprobe_mouse.meme
```

For further information on how to interpret these results or to get a copy of the MEME software please access <http://meme-suite.org>.

If you use AME in your research, please cite the following paper:

Robert McLeay and Timothy L. Bailey, "Motif Enrichment Analysis: A unified framework and method evaluation", *BMC Bioinformatics*, **11**:165, 2010, doi:10.1186/1471-2105-11-165. [\[full text\]](#)

[ENRICHED MOTIFS](#) | [INPUT FILES](#) | [PROGRAM INFORMATION](#)

ENRICHED MOTIFS

Fixed partition size: number of primary sequences (2188)

Sequence motif score: avg_odds
Background model source: file background.model
Background model frequencies: 0.291,0.209,0.209,0.291
Total pseudocount added to a motif column: 0.25

Statistical test: Wilcoxon rank-sum test
Ranksum method: quick

Threshold *p*-value for reporting results: 0.05

Number of multiple tests for Bonferroni correction: #Motifs × #PartitionsTested = 591 × 1 = 591

Sequence motif score: avg_odds
Background model source: file background.model
Background model frequencies: 0.291,0.209,0.209,0.291
Total pseudocount added to a motif column: 0.25

Statistical test: Wilcoxon rank-sum test
Ranksum method: quick

Threshold *p*-value for reporting results: 0.05

Number of multiple tests for Bonferroni correction: #Motifs × #PartitionsTested = 591 × 1 = 591



Logo	Database	ID	Name	<i>p</i> -value	Adjusted <i>p</i> -value
	JASPAR CORE 2014 vertebrates	MA0498.1	Meis1	2.03e-15	1.20e-12



uniprobe mouse

[UP00210_1](#)

Mrg2_2302.1

6.92e-14

4.09e-11



uniprobe mouse

[UP00226_1](#)

Mrg1_2246.2

9.68e-12

5.72e-9



uniprobe mouse

[UP00205_1](#)

Pknox2_3077.2

1.04e-11

6.14e-9



uniprobe mouse

[UP00203_1](#)

Pknox1_2364.2

1.44e-11

8.53e-9



uniprobe mouse

[UP00258_1](#)

Tgif2_3451.1

2.30e-11

1.36e-8



uniprobe mouse

[UP00186_1](#)

Meis1_2335.1

6.47e-11

3.82e-8



uniprobe mouse

[UP00122_1](#)

Tgif1_2342.2

9.09e-11

5.37e-8



JASPAR CORE 2014 vertebrates

[MA0089.1](#)

NFE2L1::MafG

9.31e-7

5.50e-4



uniprobe mouse

[UP00048_1](#)

Rara_primary

8.08e-5

4.66e-2

INPUT FILES

Sequences

Primary Sequences	Number	Control Sequences	Number	Primary Sequences	Number	Control Sequences	Number
ud-300down.fa	2188	ud-300restdown.fa	4337	ud-300down.fa	2188	ud-300restdown.fa	4337

Motifs

Database	Source	Motif Count
JASPAR CORE 2014 vertebrates	db/JASPAR/JASPAR_CORE_2014_vertebrates.meme	205
uniprobe mouse	db/MOUSE/uniprobe_mouse.meme	386
JASPAR CORE 2014 vertebrates	db/JASPAR/JASPAR_CORE_2014_vertebrates.meme	205
uniprobe mouse	db/MOUSE/uniprobe_mouse.meme	386

AME version

4.11.24.11.2 (Release date: Thu May 05 14:58:55 2016 -0700Thu May 05 14:58:55 2016 -0700)

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Command line summary

```
/home/meme/meme_4.11.2/bin/ame --verbose 1 --oc . --control ud-300restdown.fa --bgformat 2 --bgfile background.model --scoring avg --method ranksum --pvalue-report-threshold 0.05 ud-300down.fa db/JASPAR/JASPAR_CORE_2014_vertebrates.meme db/MOUSE/uniprobe_mouse.meme
```



For further information on how to interpret these results or to get a copy of the MEME software please access <http://meme-suite.org>.

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[ENRICHED MOTIFS](#) | [INPUT FILES](#) | [PROGRAM INFORMATION](#)

ENRICHED MOTIFS

Fixed partition size: number of primary sequences (2083)

Sequence motif score: avg_odds

Background model source: file background.model

Background model frequencies: 0.291,0.209,0.209,0.291

Total pseudocount added to a motif column: 0.25

Statistical test: Wilcoxon rank-sum test

Ranksum method: quick

Threshold *p*-value for reporting results: 0.05

Number of multiple tests for Bonferroni correction: #Motifs × #PartitionsTested = 591 × 1 = 591

Sequence motif score: avg_odds

Background model source: file background.model

Background model frequencies: 0.291,0.209,0.209,0.291


Total pseudocount added to a motif column: 0.25

Statistical test: Wilcoxon rank-sum test

Ranksum method: quick

Threshold *p*-value for reporting results: 0.05

Number of multiple tests for Bonferroni correction: #Motifs × #PartitionsTested = 591 × 1 = 591

Logo	Database	ID	Name	<i>p</i> -value	Adjusted <i>p</i> -value
	JASPAR CORE 2014 vertebrates	MA0112.2	ESR1	6.27e-8	3.70e-5



uniprobe mouse

[UP00043_2](#)

Bcl6b_secondary

5.07e-6

2.99e-3



JASPAR CORE 2014 vertebrates

[MA0524.1](#)

TFAP2C

5.78e-6

3.41e-3



JASPAR CORE 2014 vertebrates

[MA0122.1](#)

Nkx3-2

5.86e-6

3.46e-3



uniprobe mouse

[UP00099_2](#)

Ascl2_secondary

9.15e-6

5.39e-3



uniprobe mouse

[UP00086_2](#)

Irf3_secondary

1.27e-5

7.51e-3



uniprobe mouse

[UP00010_1](#)

Tcfap2b_primary

1.46e-5

8.61e-3



JASPAR CORE 2014 vertebrates

[MA0472.1](#)

EGR2

1.53e-5

9.01e-3



uniprobe mouse

[UP00033_2](#)

Zfp410_secondary

2.52e-5

1.48e-2



uniprobe mouse

[UP00021_1](#)

Zfp281_primary

3.02e-5

1.77e-2



JASPAR CORE 2014 vertebrates

[MA0163.1](#)

PLAG1

6.11e-5

3.54e-2



JASPAR CORE 2014 vertebrates

[MA0056.1](#)

MZF1_1-4

6.19e-5

3.59e-2



JASPAR CORE 2014 vertebrates	MA0483.1	Gfi1b	7.18e-5	4.15e-2
JASPAR CORE 2014 vertebrates	MA0057.1	MZF1_5-13	7.47e-5	4.32e-2
JASPAR CORE 2014 vertebrates	MA0130.1	ZNF354C	7.78e-5	4.50e-2
uniprobe mouse	UP00070_1	Gcm1_primary	8.07e-5	4.66e-2

INPUT FILES

Sequences

Primary Sequences	Number	Control Sequences	Number				
ud300up.fa	2083	ud300restup.fa	4442	ud300up.fa	2083	ud300restup.fa	4442

Motifs

Database	Source	Motif Count
JASPAR CORE 2014 vertebrates	db/JASPAR/JASPAR_CORE_2014_vertebrates.meme	205
uniprobe mouse	db/MOUSE/uniprobe_mouse.meme	386
JASPAR CORE 2014 vertebrates	db/JASPAR/JASPAR_CORE_2014_vertebrates.meme	205
uniprobe mouse	db/MOUSE/uniprobe_mouse.meme	386

AME version

4.11.24.11.2 (Release date: Thu May 05 14:58:55 2016 -0700Thu May 05 14:58:55 2016 -0700)
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Command line summary

```
/home/meme/meme_4.11.2/bin/ame --verbose 1 --oc . --control ud300restup.fa --bgformat 2 --bgfile background.model --scoring avg --method ranksum --pvalue-report-threshold 0.05 ud300up.fa db/JASPAR/JASPAR_CORE_2014_vertibrates.meme db/MOUSE/uniprobe_mouse.meme
```



For further information on how to interpret these results or to get a copy of the MEME software please access <http://meme-suite.org>.

If you use AME in your research, please cite the following paper:

Robert McLeay and Timothy L. Bailey, "Motif Enrichment Analysis: A unified framework and method evaluation", *BMC Bioinformatics*, **11**:165, 2010, doi:10.1186/1471-2105-11-165. [\[full text\]](#)

[ENRICHED MOTIFS](#) | [INPUT FILES](#) | [PROGRAM INFORMATION](#)

ENRICHED MOTIFS

Fixed partition size: number of primary sequences (250)

Sequence motif score: avg_odds

Background model source: file background.model

Background model frequencies: 0.291,0.209,0.209,0.291

Total pseudocount added to a motif column: 0.25

Statistical test: Wilcoxon rank-sum test

Ranksum method: quick

Threshold p -value for reporting results: 0.05

Number of multiple tests for Bonferroni correction: #Motifs \times #PartitionsTested = 591 \times 1 = 591

Sequence motif score: avg_odds

Background model source: file background.model

Background model frequencies: 0.291,0.209,0.209,0.291

Total pseudocount added to a motif column: 0.25

Statistical test: Wilcoxon rank-sum test

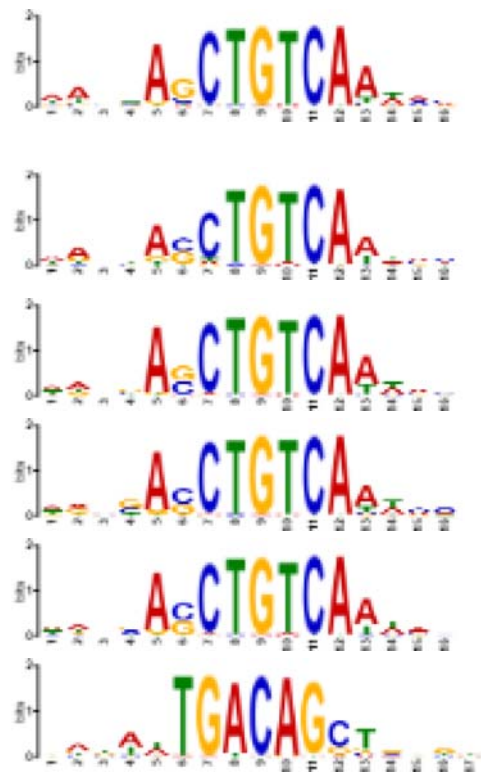
Ranksum method: quick

Threshold p -value for reporting results: 0.05

Number of multiple tests for Bonferroni correction: #Motifs \times #PartitionsTested = 591 \times 1 = 591



Logo	Database	ID	Name	p -value	Adjusted p -value
	JASPAR CORE 2014 vertebrates	MA0498.1	Meis1	2.98e-7	1.76e-4



uniprobe mouse	UP00258_1	Tgif2_3451.1	5.61e-7	3.32e-4
uniprobe mouse	UP00210_1	Mrg2_2302.1	5.07e-6	2.99e-3
uniprobe mouse	UP00186_1	Meis1_2335.1	1.60e-5	9.39e-3
uniprobe mouse	UP00203_1	Pknox1_2364.2	2.16e-5	1.27e-2
uniprobe mouse	UP00226_1	Mrg1_2246.2	2.48e-5	1.45e-2
uniprobe mouse	UP00122_1	Tgif1_2342.2	5.99e-5	3.48e-2

INPUT FILES

Sequences

Primary Sequences	Number	Control Sequences	Number				
ud-300type1.fa	250	ud-300rest1.fa	6275	ud-300type1.fa	250	ud-300rest1.fa	6275

Motifs

Database	Source	Motif Count
JASPAR CORE 2014 vertebrates	db/JASPAR/JASPAR_CORE_2014 Vertebrates.meme	205
uniprobe mouse	db/MOUSE/uniprobe_mouse.meme	386
JASPAR CORE 2014 vertebrates	db/JASPAR/JASPAR_CORE_2014 Vertebrates.meme	205
uniprobe mouse	db/MOUSE/uniprobe_mouse.meme	386

AME version

4.11.24.11.2 (Release date: Thu May 05 14:58:55 2016 -0700Thu May 05 14:58:55 2016 -0700)
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Command line summary

```
/home/meme/meme_4.11.2/bin/ame --verbose 1 --oc . --control ud-300rest1.fa --bgformat 2 --bgfile background.model --scoring avg --method  
ranksum --pvalue-report-threshold 0.05 ud-300type1.fa db/JASPAR/JASPAR_CORE_2014_vertibrates.meme db/MOUSE/uniprobe_mouse.meme
```



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If you use AME in your research, please cite the following paper:

Robert McLeay and Timothy L. Bailey, "Motif Enrichment Analysis: A unified framework and method evaluation", *BMC Bioinformatics*, **11**:165, 2010, doi:10.1186/1471-2105-11-165. [\[full text\]](#)

[ENRICHED MOTIFS](#) | [INPUT FILES](#) | [PROGRAM INFORMATION](#)

ENRICHED MOTIFS

Fixed partition size: number of primary sequences (596)


Sequence motif score: avg_odds
 Background model source: file background.model
 Background model frequencies: 0.291,0.209,0.209,0.291
 Total pseudocount added to a motif column: 0.25

Statistical test: Wilcoxon rank-sum test
 Ranksum method: quick
 Threshold *p*-value for reporting results: 0.05
 Number of multiple tests for Bonferroni correction: #Motifs × #PartitionsTested = 591 × 1 = 591

Sequence motif score: avg_odds
 Background model source: file background.model
 Background model frequencies: 0.291,0.209,0.209,0.291
 Total pseudocount added to a motif column: 0.25

Statistical test: Wilcoxon rank-sum test
 Ranksum method: quick
 Threshold *p*-value for reporting results: 0.05
 Number of multiple tests for Bonferroni correction: #Motifs × #PartitionsTested = 591 × 1 = 591



Logo	Database	ID	Name	<i>p</i> -value	Adjusted <i>p</i> -value
	JASPAR CORE 2014 vertebrates	MA0498.1	Meis1	4.22e-6	2.49e-3

INPUT FILES

Sequences

Primary Sequences	Number	Control Sequences	Number	Primary Sequences	Number	Control Sequences	Number
Control Sequences							
ud-300type2.fa	596	ud-300rest2.fa	5929	ud-300type2.fa	596	ud-300rest2.fa	5929

Motifs

Database	Source	Motif Count
JASPAR CORE 2014 vertebrates	db/JASPAR/JASPAR_CORE_2014_vertebrates.meme	205
uniprobe mouse	db/MOUSE/uniprobe_mouse.meme	386
JASPAR CORE 2014 vertebrates	db/JASPAR/JASPAR_CORE_2014_vertebrates.meme	205
uniprobe mouse	db/MOUSE/uniprobe_mouse.meme	386

AME version

4.11.24.11.2 (Release date: Thu May 05 14:58:55 2016 -0700Thu May 05 14:58:55 2016 -0700)
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Command line summary

```
/home/meme/meme_4.11.2/bin/ame --verbose 1 --oc . --control ud-300rest2.fa --bgformat 2 --bgfile background.model --scoring avg --method ranksum --pvalue-report-threshold 0.05 ud-300type2.fa db/JASPAR/JASPAR_CORE_2014_vertebrates.meme db/MOUSE/uniprobe_mouse.meme
```



For further information on how to interpret these results or to get a copy of the MEME software please access <http://meme-suite.org>.

If you use AME in your research, please cite the following paper:

Robert McLeay and Timothy L. Bailey, "Motif Enrichment Analysis: A unified framework and method evaluation", *BMC Bioinformatics*, **11**:165, 2010, doi:10.1186/1471-2105-11-165. [\[full text\]](#)

[ENRICHED MOTIFS](#) | [INPUT FILES](#) | [PROGRAM INFORMATION](#)

ENRICHED MOTIFS

Fixed partition size: number of primary sequences (329)

Sequence motif score: avg_odds

Background model source: file background.model

Background model frequencies: 0.291,0.209,0.209,0.291

Total pseudocount added to a motif column: 0.25

Statistical test: Wilcoxon rank-sum test

Ranksum method: quick

Threshold p -value for reporting results: 0.05

Number of multiple tests for Bonferroni correction: #Motifs \times #PartitionsTested = 591 \times 1 = 591

Sequence motif score: avg_odds

Background model source: file background.model

Background model frequencies: 0.291,0.209,0.209,0.291

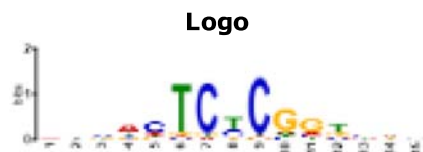
Total pseudocount added to a motif column: 0.25

Statistical test: Wilcoxon rank-sum test

Ranksum method: quick

Threshold p -value for reporting results: 0.05

Number of multiple tests for Bonferroni correction: #Motifs \times #PartitionsTested = 591 \times 1 = 591



Logo	Database	ID	Name	p -value	Adjusted p -value
	uniprobe mouse	UP00011_2	Irf6_secondary	2.43e-5	1.42e-2

INPUT FILES

Sequences

Primary Sequences	Number	Control Sequences	Number	Primary Sequences	Number	Control Sequences	Number
Control Sequences							
ud-300type4.fa	329	ud-300rest4.fa	6196	ud-300type4.fa	329	ud-300rest4.fa	6196

Motifs

Database	Source	Motif Count
JASPAR CORE 2014 vertebrates	db/JASPAR/JASPAR_CORE_2014_vertebrates.meme	205
uniprobe mouse	db/MOUSE/uniprobe_mouse.meme	386
JASPAR CORE 2014 vertebrates	db/JASPAR/JASPAR_CORE_2014_vertebrates.meme	205
uniprobe mouse	db/MOUSE/uniprobe_mouse.meme	386

AME version

4.11.24.11.2 (Release date: Thu May 05 14:58:55 2016 -0700Thu May 05 14:58:55 2016 -0700)
Copyright © Robert McLeay r.mcleay@imb.uq.edu.au & Timothy Bailey t.bailey@imb.uq.edu.au, 2009.

Command line summary

```
/home/meme/meme_4.11.2/bin/ame --verbose 1 --oc . --control ud-300rest4.fa --bgformat 2 --bgfile background.model --scoring avg --method ranksum --pvalue-report-threshold 0.05 ud-300type4.fa db/JASPAR/JASPAR_CORE_2014_vertebrates.meme db/MOUSE/uniprobe_mouse.meme
```



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If you use AME in your research, please cite the following paper:

Robert McLeay and Timothy L. Bailey, "Motif Enrichment Analysis: A unified framework and method evaluation", *BMC Bioinformatics*, **11**:165, 2010, doi:10.1186/1471-2105-11-165. [\[full text\]](#)

[ENRICHED MOTIFS](#) | [INPUT FILES](#) | [PROGRAM INFORMATION](#)

ENRICHED MOTIFS

Fixed partition size: number of primary sequences (166)

Sequence motif score: avg_odds

Background model source: file background.model

Background model frequencies: 0.291,0.209,0.209,0.291

Total pseudocount added to a motif column: 0.25

Statistical test: Wilcoxon rank-sum test

Ranksum method: quick

Threshold *p*-value for reporting results: 0.05

Number of multiple tests for Bonferroni correction: #Motifs × #PartitionsTested = 591 × 1 = 591

Sequence motif score: avg_odds

Background model source: file background.model

Background model frequencies: 0.291,0.209,0.209,0.291


Total pseudocount added to a motif column: 0.25

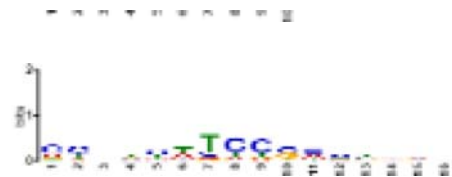
Statistical test: Wilcoxon rank-sum test

Ranksum method: quick

Threshold *p*-value for reporting results: 0.05

Number of multiple tests for Bonferroni correction: #Motifs × #PartitionsTested = 591 × 1 = 591

Logo	Database	ID	Name	<i>P</i> -value	Adjusted <i>p</i> -value
	JASPAR CORE 2014 vertebrates	MA0057.1	MZF1_5-13	3.51e-7	2.08e-4



uniprobe mouse

[UP00013_2](#)

Gabpa_secondary

9.17e-6

5.41e-3



uniprobe mouse

[UP00047_1](#)

Zbtb7b_primary

9.35e-6

5.51e-3



uniprobe mouse

[UP00086_2](#)

Irf3_secondary

1.14e-5

6.74e-3



JASPAR CORE 2014 vertebrates

[MA0528.1](#)

ZNF263

2.66e-5

1.56e-2



uniprobe mouse

[UP00022_1](#)

Zfp740_primary

2.67e-5

1.56e-2



JASPAR CORE 2014 vertebrates

[MA0513.1](#)

SMAD2::SMAD3::SMAD4

3.19e-5

1.87e-2



uniprobe mouse

[UP00099_2](#)

Ascl2_secondary

3.65e-5

2.14e-2

INPUT FILES

Sequences

Primary Sequences
Control Sequences

Number
Number

Control Sequences

Number

ud300type6.fa

166

ud300rest6.fa

6359

ud300type6.fa

166

ud300rest6.fa

6359

Motifs

Database	Source	Motif Count
JASPAR CORE 2014 vertebrates	db/JASPAR/JASPAR_CORE_2014 Vertebrates.meme	205
uniprobe mouse	db/MOUSE/uniprobe_mouse.meme	386
JASPAR CORE 2014 vertebrates	db/JASPAR/JASPAR_CORE_2014 Vertebrates.meme	205
uniprobe mouse	db/MOUSE/uniprobe_mouse.meme	386

AME version

4.11.24.11.2 (Release date: Thu May 05 14:58:55 2016 -0700Thu May 05 14:58:55 2016 -0700)
Copyright © Robert McLeay r.mcleay@imb.uq.edu.au & Timothy Bailey t.bailey@imb.uq.edu.au, 2009.

Command line summary

```
/home/meme/meme_4.11.2/bin/ame --verbose 1 --oc . --control ud300rest6.fa --bgformat 2 --bgfile background.model --scoring avg --method ranksum --pvalue-report-threshold 0.05 ud300type6.fa db/JASPAR/JASPAR_CORE_2014_Vertebrates.meme db/MOUSE/uniprobe_mouse.meme
```

For further information on how to interpret these results or to get a copy of the MEME software please access <http://meme-suite.org>.

If you use AME in your research, please cite the following paper:

Robert McLeay and Timothy L. Bailey, "Motif Enrichment Analysis: A unified framework and method evaluation", *BMC Bioinformatics*, **11**:165, 2010, doi:10.1186/1471-2105-11-165. [\[full text\]](#)

[ENRICHED MOTIFS](#) | [INPUT FILES](#) | [PROGRAM INFORMATION](#)

ENRICHED MOTIFS

Fixed partition size: number of primary sequences (1240)

Sequence motif score: avg_odds
Background model source: file background.model
Background model frequencies: 0.291,0.209,0.209,0.291
Total pseudocount added to a motif column: 0.25

Statistical test: Wilcoxon rank-sum test
Ranksum method: quick

Threshold *p*-value for reporting results: 0.05

Number of multiple tests for Bonferroni correction: #Motifs × #PartitionsTested = 591 × 1 = 591


Sequence motif score: avg_odds
Background model source: file background.model
Background model frequencies: 0.291,0.209,0.209,0.291
Total pseudocount added to a motif column: 0.25

Statistical test: Wilcoxon rank-sum test
Ranksum method: quick

Threshold *p*-value for reporting results: 0.05

Number of multiple tests for Bonferroni correction: #Motifs × #PartitionsTested = 591 × 1 = 591



Logo	Database	ID	Name	<i>p</i> -value	Adjusted <i>p</i> -value
	JASPAR CORE 2014 vertebrates	MA0095.2	YY1	2.56e-5	1.50e-2

INPUT FILES

Sequences

Primary Sequences	Number	Control Sequences	Number	Primary Sequences	Number	Control Sequences	Number
ud-300type7.fa	1240	ud-300rest7.fa	5285	ud-300type7.fa	1240	ud-300rest7.fa	5285

Motifs

Database	Source	Motif Count
JASPAR CORE 2014 vertebrates	db/JASPAR/JASPAR_CORE_2014_vertebrates.meme	205
uniprobe mouse	db/MOUSE/uniprobe_mouse.meme	386
JASPAR CORE 2014 vertebrates	db/JASPAR/JASPAR_CORE_2014_vertebrates.meme	205
uniprobe mouse	db/MOUSE/uniprobe_mouse.meme	386

AME version

4.11.24.11.2 (Release date: Thu May 05 14:58:55 2016 -0700Thu May 05 14:58:55 2016 -0700)
Copyright © Robert McLeay r.mcleay@imb.uq.edu.au & Timothy Bailey t.bailey@imb.uq.edu.au, 2009.

Command line summary

```
/home/meme/meme_4.11.2/bin/ame --verbose 1 --oc . --control ud-300rest7.fa --bgformat 2 --bgfile background.model --scoring avg --method ranksum --pvalue-report-threshold 0.05 ud-300type7.fa db/JASPAR/JASPAR_CORE_2014_vertebrates.meme db/MOUSE/uniprobe_mouse.meme
```

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[ENRICHED MOTIFS](#) | [INPUT FILES](#) | [PROGRAM INFORMATION](#)

ENRICHED MOTIFS

Fixed partition size: number of primary sequences (527)

Sequence motif score: avg_odds

Background model source: file background.model

Background model frequencies: 0.291,0.209,0.209,0.291

Total pseudocount added to a motif column: 0.25

Statistical test: Wilcoxon rank-sum test

Ranksum method: quick

Threshold *p*-value for reporting results: 0.05

Number of multiple tests for Bonferroni correction: #Motifs × #PartitionsTested = 591 × 1 = 591

Sequence motif score: avg_odds

Background model source: file background.model

Background model frequencies: 0.291,0.209,0.209,0.291

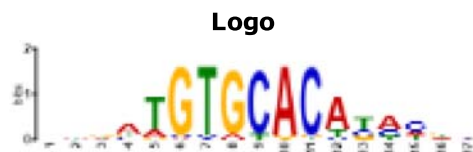
Total pseudocount added to a motif column: 0.25

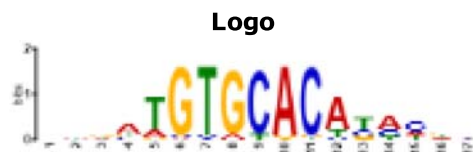
Statistical test: Wilcoxon rank-sum test

Ranksum method: quick

Threshold *p*-value for reporting results: 0.05

Number of multiple tests for Bonferroni correction: #Motifs × #PartitionsTested = 591 × 1 = 591



Logo	Database	ID	Name	<i>p</i> -value	Adjusted <i>p</i> -value
	uniprobe mouse	UP00042_1	Gm397_primary	5.35e-6	3.16e-3



uniprobe mouse [UP00026_1](#) Zscan4_primary 2.97e-5 1.74e-2

INPUT FILES

Sequences

Primary Sequences	Number	Control Sequences	Number
ud300type8.fa	527	ud300rest8.fa	5998
Control Sequences	Number	ud300type8.fa	527
		ud300rest8.fa	5998

Motifs

Database	Source	Motif Count
JASPAR CORE 2014 vertebrates	db/JASPAR/JASPAR_CORE_2014_vertebrates.meme	205
uniprobe mouse	db/MOUSE/uniprobe_mouse.meme	386
JASPAR CORE 2014 vertebrates	db/JASPAR/JASPAR_CORE_2014_vertebrates.meme	205
uniprobe mouse	db/MOUSE/uniprobe_mouse.meme	386

AME version

4.11.24.11.2 (Release date: Thu May 05 14:58:55 2016 -0700Thu May 05 14:58:55 2016 -0700)
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Command line summary

```
/home/meme/meme_4.11.2/bin/ame --verbose 1 --oc . --control ud300rest8.fa --bgformat 2 --bgfile background.model --scoring avg --method ranksum --pvalue-report-threshold 0.05 ud300type8.fa db/JASPAR/JASPAR_CORE_2014_vertebrates.meme db/MOUSE/uniprobe_mouse.meme
```

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If you use AME in your research, please cite the following paper:

Robert McLeay and Timothy L. Bailey, "Motif Enrichment Analysis: A unified framework and method evaluation", *BMC Bioinformatics*, **11**:165, 2010, doi:10.1186/1471-2105-11-165. [\[full text\]](#)

[ENRICHED MOTIFS](#) | [INPUT FILES](#) | [PROGRAM INFORMATION](#)

ENRICHED MOTIFS

Fixed partition size: number of primary sequences (150)

Sequence motif score: avg_odds

Background model source: file background.model

Background model frequencies: 0.291,0.209,0.209,0.291

Total pseudocount added to a motif column: 0.25

Statistical test: Wilcoxon rank-sum test

Ranksum method: quick

Threshold *p*-value for reporting results: 0.05

Number of multiple tests for Bonferroni correction: #Motifs × #PartitionsTested = 591 × 1 = 591

Sequence motif score: avg_odds

Background model source: file background.model

Background model frequencies: 0.291,0.209,0.209,0.291

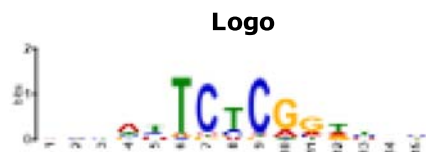
Total pseudocount added to a motif column: 0.25

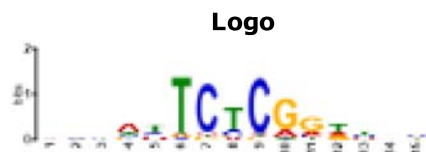
Statistical test: Wilcoxon rank-sum test

Ranksum method: quick

Threshold *p*-value for reporting results: 0.05

Number of multiple tests for Bonferroni correction: #Motifs × #PartitionsTested = 591 × 1 = 591



Logo	Database	ID	Name	<i>p</i> -value	Adjusted <i>p</i> -value
	uniprobe mouse	UP00018_2	Irf4_secondary	5.82e-5	3.38e-2



uniprobe mouse [UP00070_2](#) Gcm1_secondary 7.34e-5 4.25e-2

INPUT FILES

Sequences

Primary Sequences	Number	Control Sequences	Number
ud300type9.fa	150	ud300rest9.fa	6375
Control Sequences	Number	ud300type9.fa	150
		ud300rest9.fa	6375

Motifs

Database	Source	Motif Count
JASPAR CORE 2014 vertebrates	db/JASPAR/JASPAR_CORE_2014_vertebrates.meme	205
uniprobe mouse	db/MOUSE/uniprobe_mouse.meme	386
JASPAR CORE 2014 vertebrates	db/JASPAR/JASPAR_CORE_2014_vertebrates.meme	205
uniprobe mouse	db/MOUSE/uniprobe_mouse.meme	386

AME version

4.11.24.11.2 (Release date: Thu May 05 14:58:55 2016 -0700Thu May 05 14:58:55 2016 -0700)
 Copyright © Robert McLeay r.mcleay@imb.uq.edu.au & Timothy Bailey t.bailey@imb.uq.edu.au, 2009.

Command line summary

```
/home/meme/meme_4.11.2/bin/ame --verbose 1 --oc . --control ud300rest9.fa --bgformat 2 --bgfile background.model --scoring avg --method ranksum --pvalue-report-threshold 0.05 ud300type9.fa db/JASPAR/JASPAR_CORE_2014_vertebrates.meme db/MOUSE/uniprobe_mouse.meme
```