

For further information on how to interpret these results please access <a href="https://meme-suite.org/meme/doc/tomtom-output-format.html">https://meme-suite.org/meme/doc/tomtom-output-format.html</a>. To get a copy of the MEME software please access <a href="https://meme-suite.org">https://meme-suite.org</a>.

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

Shobhit Gupta, JA Stamatoyannopolous, Timothy Bailey and William Stafford Noble, "Quantifying similarity between motifs", Genome Biology, 8(2):R24, 2007. [full text]

QUERY MOTIFS | TARGET DATABASES | MATCHES | SETTINGS | PROGRAM INFORMATION | RESULTS IN TSV FORMAT | RESULTS IN XML FORMAT

# **QUERY MOTIFS**

Next Top

Database	ID	Alt. ID	Preview	Matches	List
streme.xml	1- CCACCCCCACCTCC	STREME- 1	j <mark>ççåÇÇçÇç</mark> çç <sub>∓çç</sub>	39	EGR2 HUMAN.H11MO.0.A, TBX15 HUMAN.H11MO.0.D, ZBT17 HUMAN.H11MO.0.A, MAZ HUMAN.H11MO.0.A,
streme.xml	2-ACTTTG	STREME- 2	· Acılığ	2	HNF4A HUMAN.H11MO.0.A, HNF4G HUMAN.H11MO.0.B
streme.xml	3-TAATCCCAGCA	STREME- 3	Ţ <mark>ŢŖŖŢĊĊĊŖĠĊ</mark> Ŗ	1	PITX2 HUMAN.H11MO.0.D
streme.xml	4-AAATGCAAAA	STREME- 4		7	PO5F1 HUMAN.H11MO.1.A, NFAC1 HUMAN.H11MO.1.B, PO3F1 HUMAN.H11MO.0.C, PO2F2 HUMAN.H11MO.0.A,
streme.xml	5-GATGTCAG	STREME- 5	ij <mark>ĕŸĬĨĨ</mark> ŎŸ	9	RXRA HUMAN.H11MO.1.A, COT1 HUMAN.H11MO.1.C, RARB HUMAN.H11MO.0.D, NR4A1 HUMAN.H11MO.0.A,

### TARGET DATABASES

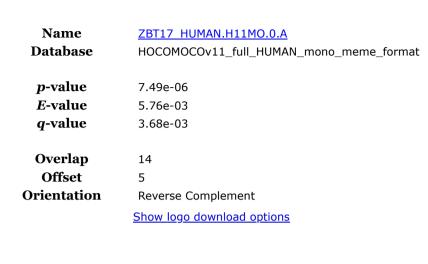
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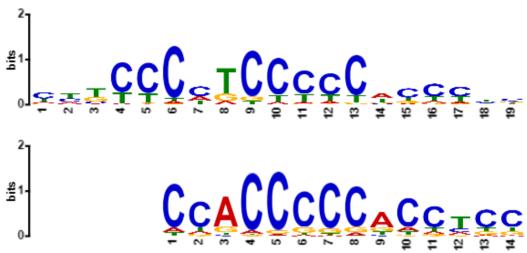
Database	Used	Matched
HOCOMOCOv11_full_HUMAN_mono_meme_format	769	58

# MATCHES TO 1-CCACCCCCACCTCC (STREME-1)

Previous Next Top

### **Optimal Alignment Summary** Name EGR2 HUMAN.H11MO.0.A **Database** HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format *p*-value 7.21e-07 E-value 5.54e-04 q-value 1.06e-03 **Overlap** 14 Offset 2 Orientation Reverse Complement Show logo download options **Optimal Alignment Summary** Name TBX15 HUMAN.H11MO.0.D **Database** HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format <u>울</u>1 p-value 3.05e-06 *E*-value 2.35e-03 q-value 2.25e-03 **Overlap** 14 Offset 3 Orientation Reverse Complement Show logo download options **Optimal Alignment Summary**

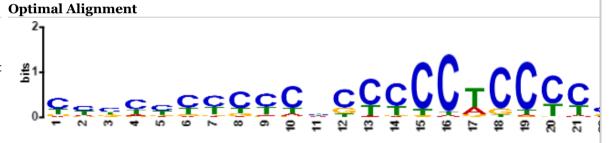




### Name MAZ HUMAN.H11MO.0.A **Database** HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format *p*-value 3.07e-05 E-value 2.36e-02 q-value 8.22e-03 **Overlap** 14 Offset

Reverse Complement Show logo download options

8







Orientation

**Summary** 

Name ZN148 HUMAN.H11MO.0.D

Database HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format

p-value3.38e-05E-value2.60e-02q-value8.22e-03

Overlap 13 Offset 2

**Orientation** Reverse Complement

Show logo download options







### **Summary**

Name

EGR1 HUMAN.H11MO.0.A

Database HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format

p-value3.84e-05E-value2.95e-02q-value8.22e-03

Overlap 14 Offset 3

**Orientation** Reverse Complement

Show logo download options

# **Optimal Alignment**

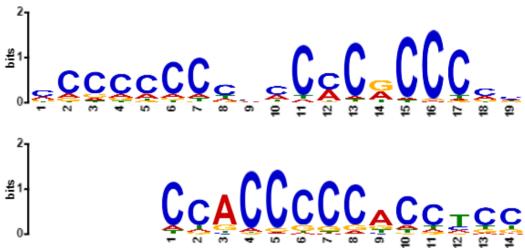






### **Summary**

Name KLF16 HUMAN.H11MO.0.D Database HOCOMOCOv11 full HUMAN mono meme format *p*-value 3.90e-05 E-value 3.00e-02 q-value 8.22e-03 Overlap 14 Offset 5 Orientation Reverse Complement Show logo download options



### **Summary**

Name

RREB1 HUMAN.H11MO.0.D

Database HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format

p-value6.31e-05E-value4.85e-02q-value1.14e-02

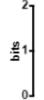
Overlap 14 Offset 8

**Orientation** Reverse Complement

Show logo download options

# **Optimal Alignment**







### **Summary**

Name <u>EGR2 HUMAN.H11MO.1.A</u>

Database HOCOMOCOv11 full HUMAN mono meme format

p-value7.02e-05E-value5.40e-02q-value1.14e-02

Overlap 13 Offset 3

**Orientation** Reverse Complement

Show logo download options





### **Summary**

Name

KLF14 HUMAN.H11MO.0.D

Database HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format

p-value9.01e-05E-value6.93e-02q-value1.14e-02

Overlap 12 Offset 1

**Orientation** Reverse Complement

Show logo download options

# **Optimal Alignment**





### **Summary**

03-03-2023 10:06

**Tomtom Results** 

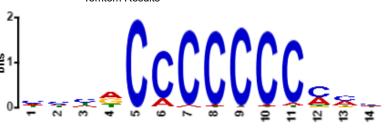
Name ZN740 HUMAN.H11MO.0.D **Database** HOCOMOCOv11 full HUMAN mono meme format *p*-value 9.03e-05 E-value 6.94e-02 q-value

Overlap 13 Offset 1

Orientation Reverse Complement

1.14e-02

Show logo download options





### **Summary**

Name

ZN263 HUMAN.H11MO.O.A

**Database** HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format

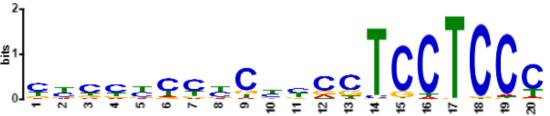
*p*-value 9.48e-05 E-value 7.29e-02 q-value 1.14e-02

**Overlap** 14 Offset 5

Orientation Reverse Complement

Show logo download options

# **Optimal Alignment**



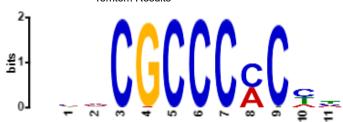




### **Summary**

Name Database	KLF13 HUMAN.H11MO.0.D HOCOMOCOv11_full_HUMAN_mono_meme_format
<i>p</i> -value	1.03e-04
<i>E</i> -value	7.88e-02
<i>q</i> -value	1.14e-02
Overlap	11







### **Summary**

# Name TBX3 HUMAN.H11MO.0.C

Database HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format

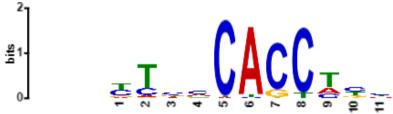
p-value1.08e-04E-value8.31e-02q-value1.14e-02

Overlap 11 Offset -3

**Orientation** Reverse Complement

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# **Optimal Alignment**





### **Summary**

Name KLF15 HUMAN.H11MO.0.A

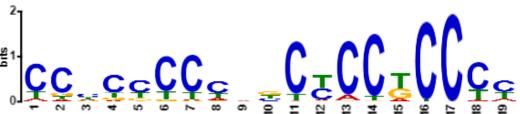
Database HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format

p-value1.16e-04E-value8.94e-02q-value1.14e-02

Overlap 14 Offset 0

**Orientation** Reverse Complement

Show logo download options





### **Summary**

Name

### SP2 HUMAN.H11MO.0.A

Database HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format

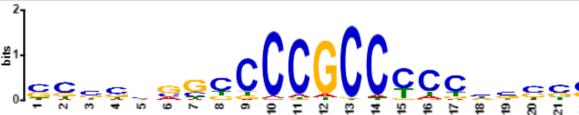
p-value1.39e-04E-value1.07e-01q-value1.23e-02

Overlap 14 Offset 3

**Orientation** Reverse Complement

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# **Optimal Alignment**





### **Summary**

Name ZN281 HUMAN.H11MO.0.A

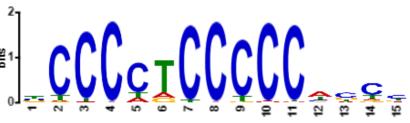
Database HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format

p-value1.42e-04E-value1.09e-01q-value1.23e-02

Overlap 12 Offset 3

**Orientation** Reverse Complement

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### **Summary**

Name

VEZF1 HUMAN.H11MO.0.C

Database HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format

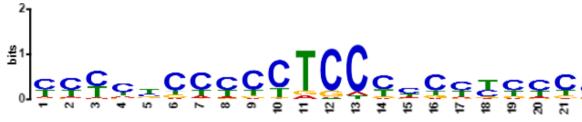
p-value1.53e-04E-value1.18e-01q-value1.25e-02

Overlap 14 Offset 2

**Orientation** Reverse Complement

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# **Optimal Alignment**







### **Summary**

Name KLF5 HUMAN.H11MO.0.A

Database HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format

p-value2.25e-04E-value1.73e-01q-value1.75e-02

Overlap 13 Offset 1

**Orientation** Reverse Complement

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### **Summary**

Name

### SP3 HUMAN.H11MO.0.B

Database HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format

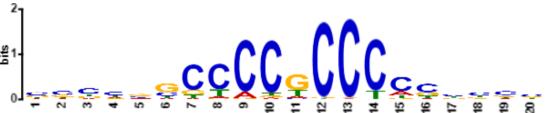
p-value2.90e-04E-value2.23e-01q-value2.12e-02

Overlap 14 Offset 2

**Orientation** Reverse Complement

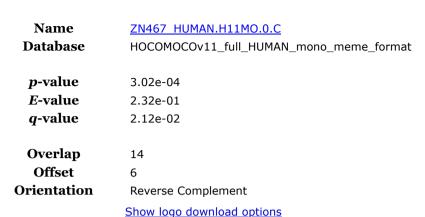
Show logo download options

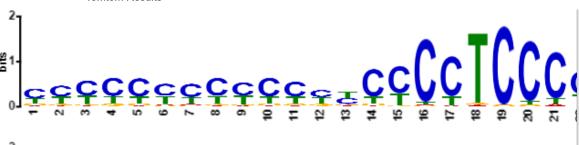
# **Optimal Alignment**





# Summary









### **Summary**

Name

ZN219 HUMAN.H11MO.0.D

Database HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format

p-value3.17e-04E-value2.44e-01q-value2.12e-02

Overlap 11 Offset 1

**Orientation** Reverse Complement

Show logo download options

# **Optimal Alignment**





### **Summary**

 Name
 VEZF1 HUMAN.H11MO.1.C

 Database
 HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format

 p-value
 3.48e-04

 E-value
 2.67e-01

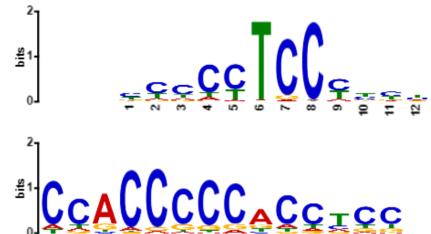
 q-value
 2.22e-02

 Overlap
 11

 Offset
 -3

**Orientation** Reverse Complement

Show logo download options



### **Summary**

Name

MXI1 HUMAN.H11MO.0.A

Database HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format

p-value3.62e-04E-value2.78e-01q-value2.22e-02

Overlap 14 Offset 1

**Orientation** Reverse Complement

Show logo download options

# **Optimal Alignment**





### **Summary**

Name PATZ1 HUMAN.H11MO.0.C Database HOCOMOCOv11 full HUMAN mono meme format *p*-value 4.38e-04 E-value 3.37e-01 q-value 2.49e-02 Overlap 14 Offset 3 Orientation Reverse Complement







### **Summary**

Name

KLF9 HUMAN.H11MO.0.C

Show logo download options

Database HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format

p-value4.50e-04E-value3.46e-01q-value2.49e-02

Overlap 13 Offset 2

**Orientation** Reverse Complement

Show logo download options

# **Optimal Alignment**







### **Summary**

Name
Database

HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format

p-value
4.57e-04
E-value
3.51e-01
q-value
2.49e-02

Overlap 14 Offset 2

**Orientation** Reverse Complement

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# Summary

Name

KLF1 HUMAN.H11MO.0.A

Database HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format

p-value4.84e-04E-value3.72e-01q-value2.55e-02

Overlap 13 Offset 1

**Orientation** Reverse Complement

Show logo download options

# **Optimal Alignment**





### **Summary**

Name

KLF3\_HUMAN.H11MO.0.B

HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format

p-value
5.41e-04
E-value
4.16e-01
q-value
2.68e-02

Overlap

14

Offset 1

**Orientation** Reverse Complement

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### **Summary**

Name

### TBX1 HUMAN.H11MO.0.D

Database HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format

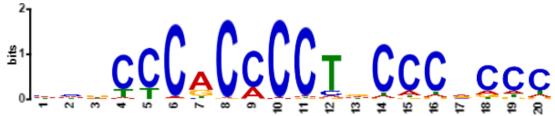
p-value5.45e-04E-value4.19e-01q-value2.68e-02

Overlap 14 Offset 4

**Orientation** Reverse Complement

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# **Optimal Alignment**







### **Summary**

 Name
 SP4\_HUMAN.H11MO.0.A

 Database
 HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format

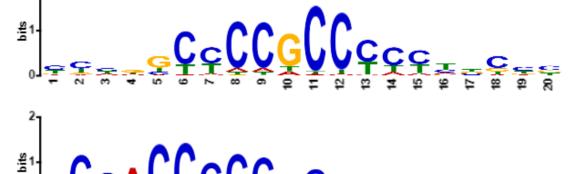
 p-value
 7.06e-04

 E-value
 5.43e-01

 q-value
 3.31e-02

 Overlap
 14

 Offset
 1



### **Summary**

Orientation

Name

### MAZ HUMAN.H11MO.1.A

Reverse Complement
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Database HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format

p-value7.19e-04E-value5.53e-01q-value3.31e-02

Overlap 11 Offset -3

**Orientation** Reverse Complement

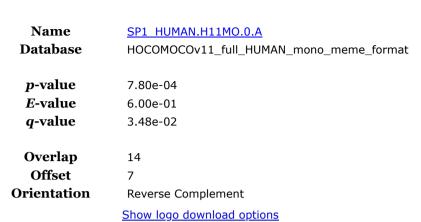
Show logo download options

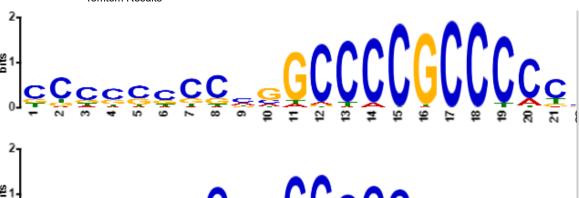
# **Optimal Alignment**





### **Summary**





### **Summary**

Name

ZN341 HUMAN.H11MO.0.C

Database HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format

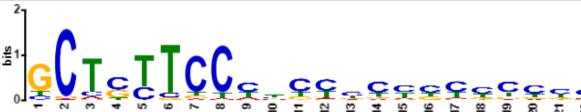
p-value9.25e-04E-value7.11e-01q-value4.01e-02

Overlap 14 Offset 6

**Orientation** Reverse Complement

Show logo download options

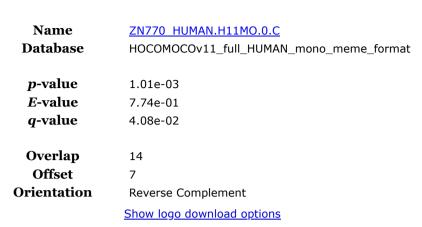
# **Optimal Alignment**

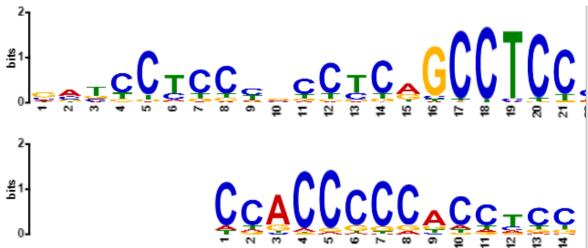






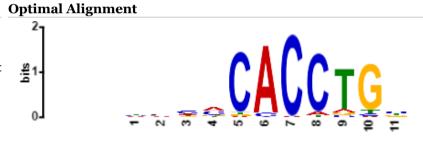
### **Summary**





# Name MESP1 HUMAN.H11MO.0.D Database HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format p-value 1.04e-03 E-value 8.03e-01 q-value 4.08e-02 Overlap 11

Reverse Complement
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**Summary** 

Offset

Orientation

-3

 Name
 SP1\_HUMAN.H11MO.1.A

 Database
 HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format

 p-value
 1.04e-03

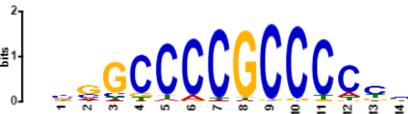
 E-value
 8.04e-01

 q-value
 4.08e-02

 Overlap
 13

Offset -1
Orientation Reverse Complement

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### **Summary**

Name

### TAF1 HUMAN.H11MO.0.A

Database HOCOMOCOv11\_full\_HUMAN\_mono\_meme\_format

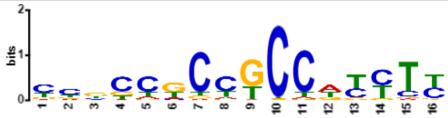
p-value1.05e-03E-value8.09e-01q-value4.08e-02

Overlap 13 Offset 3

**Orientation** Reverse Complement

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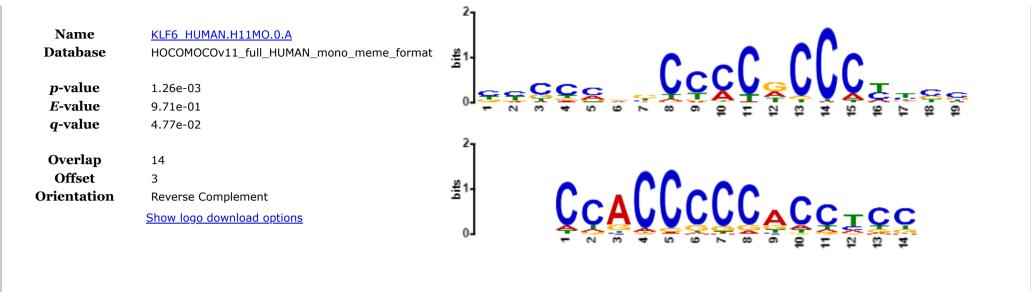
# **Optimal Alignment**





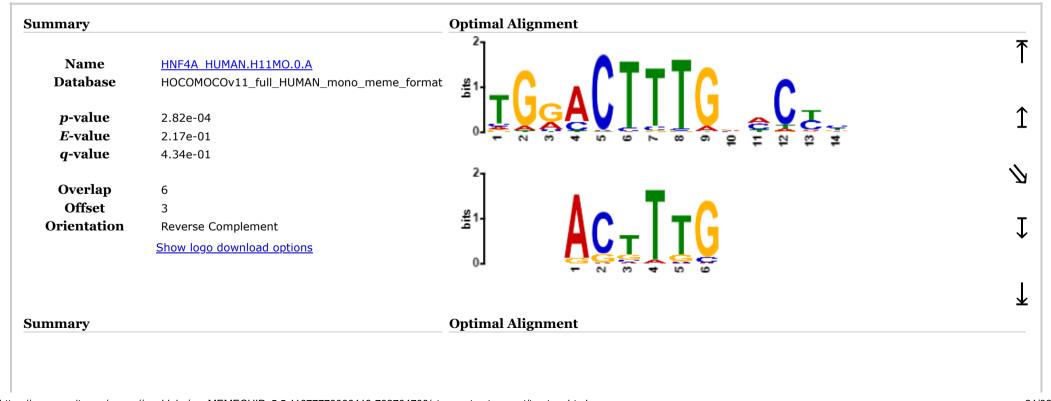


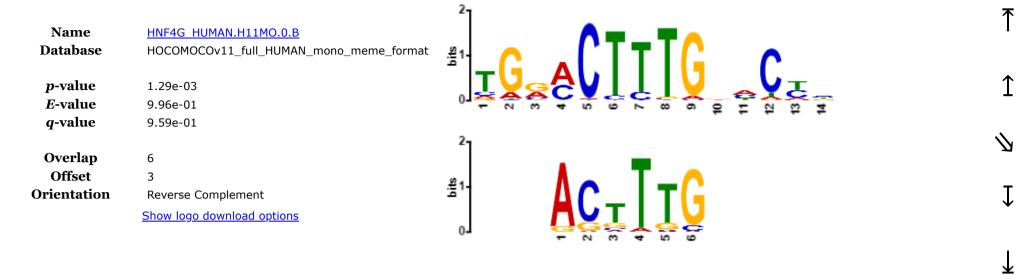
### **Summary**



# **MATCHES TO 2-ACTTTG (STREME-2)**

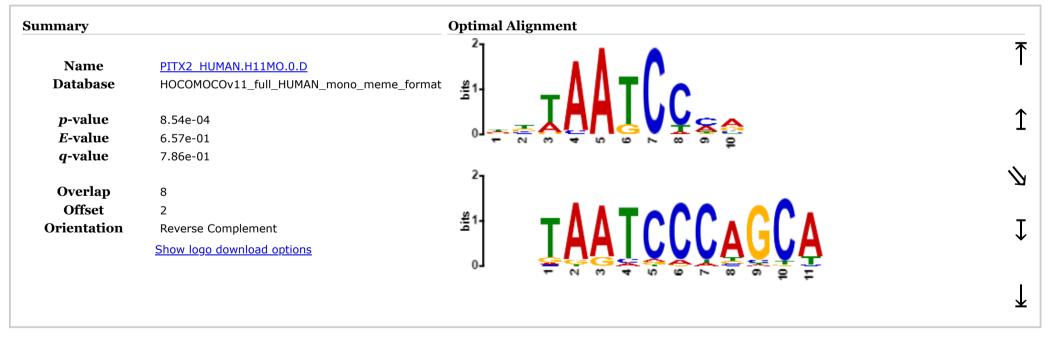
Previous Next Top





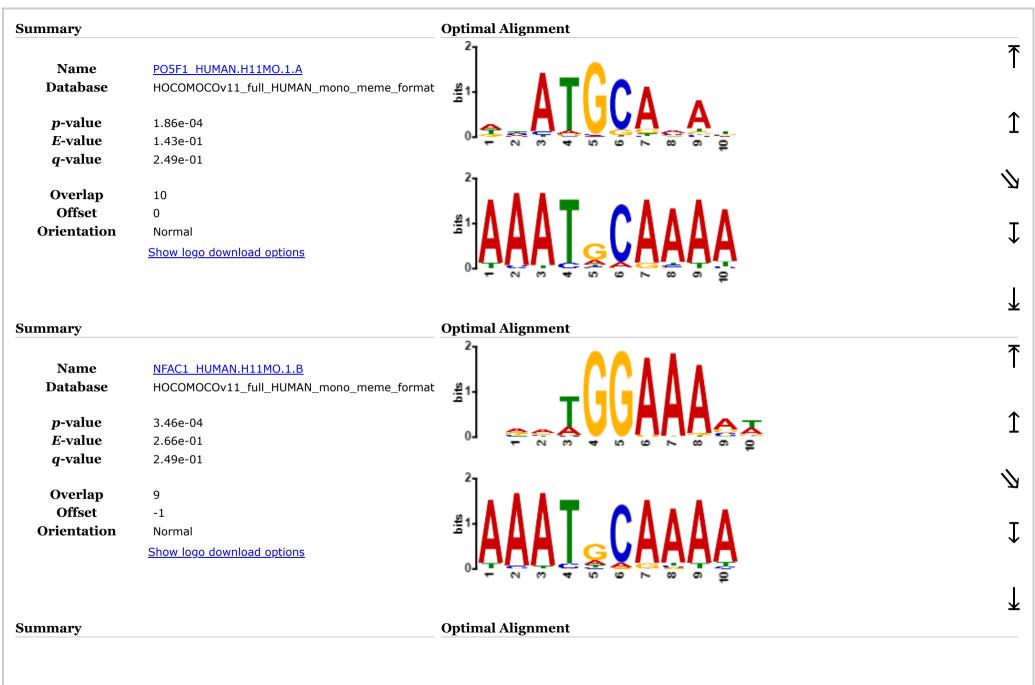
# **MATCHES TO 3-TAATCCCAGCA (STREME-3)**

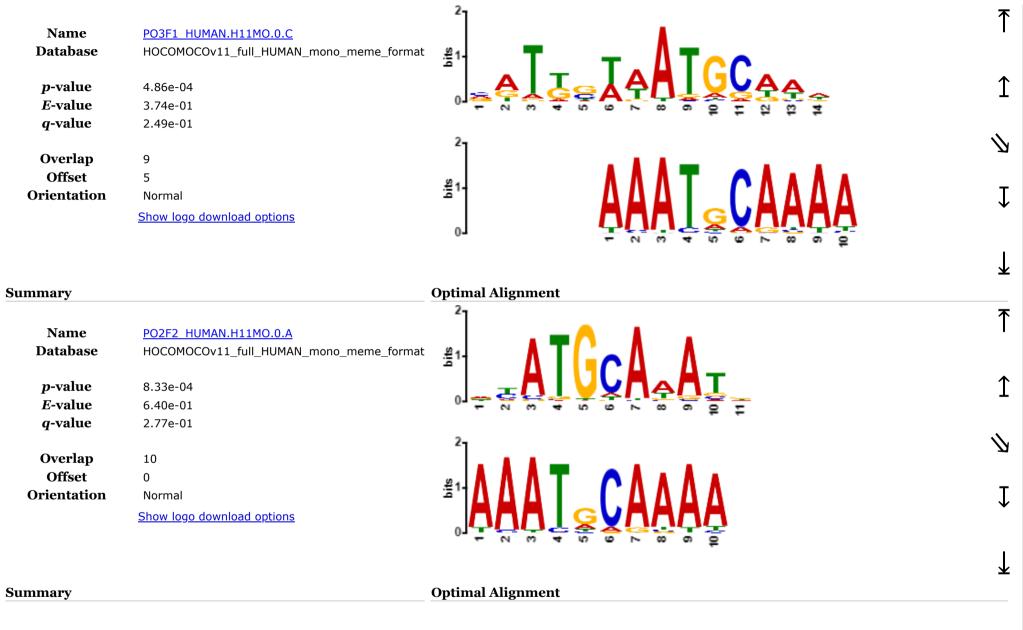
Previous Next Top

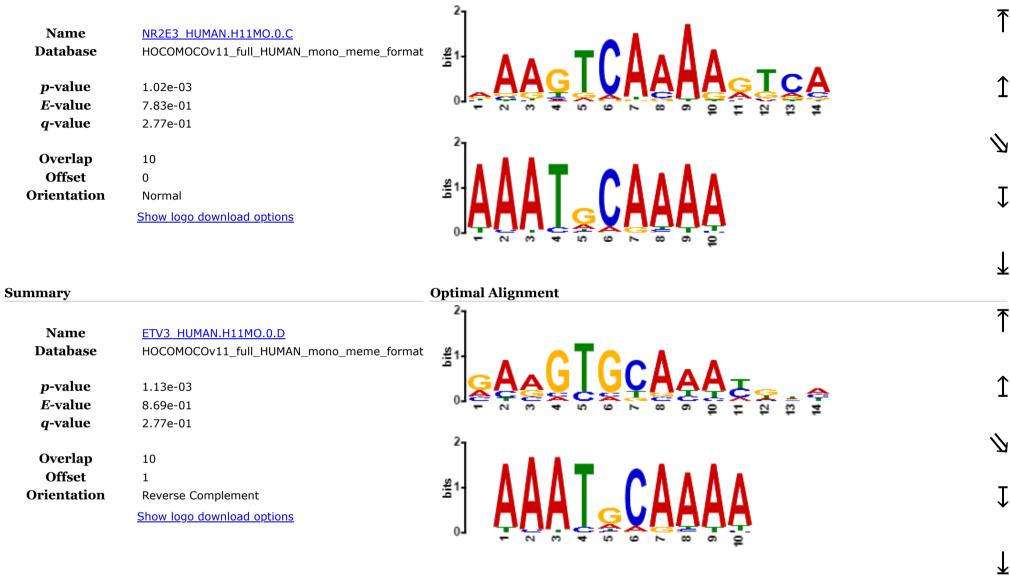


**MATCHES TO 4-AAATGCAAAA (STREME-4)** 

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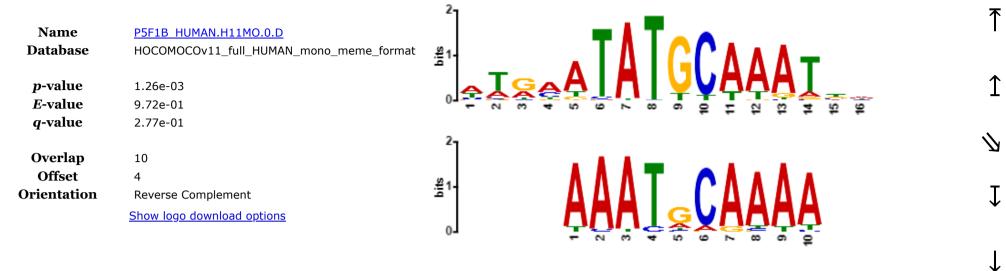






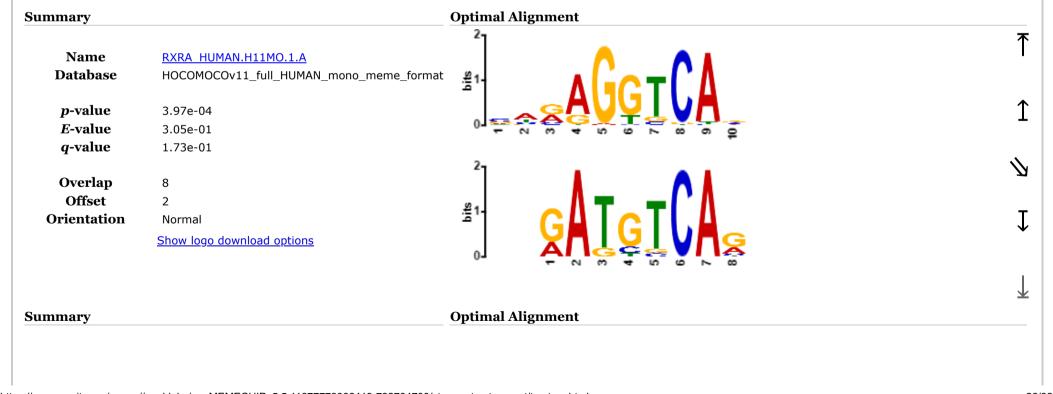
**Optimal Alignment** 

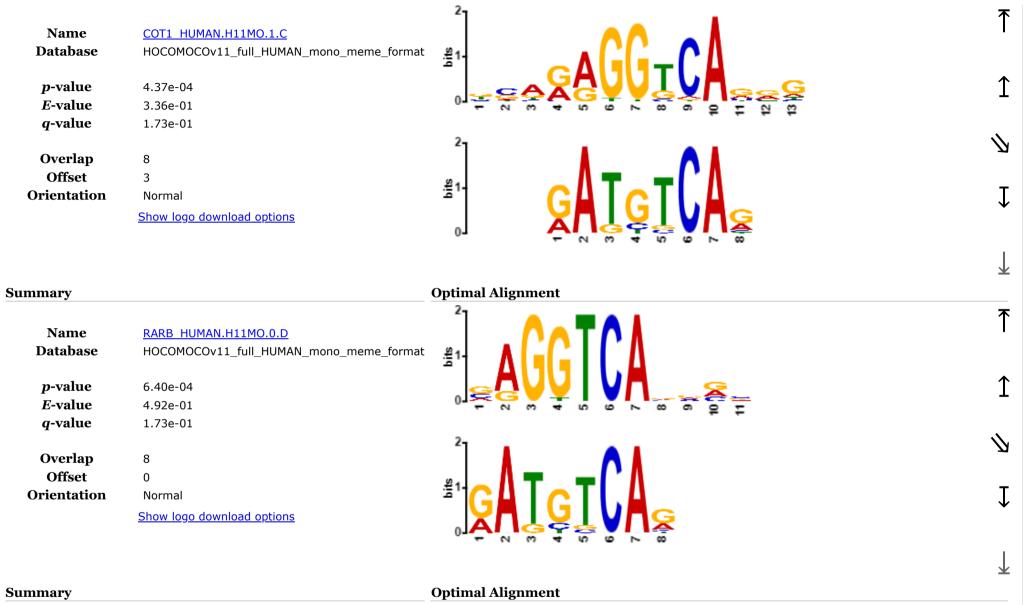
**Summary** 

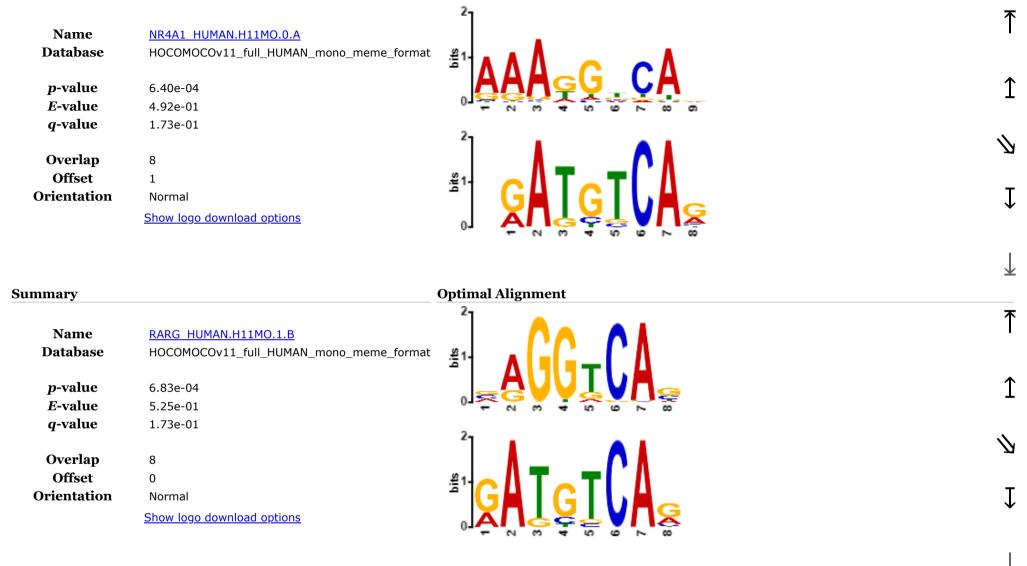


# **MATCHES TO 5-GATGTCAG (STREME-5)**

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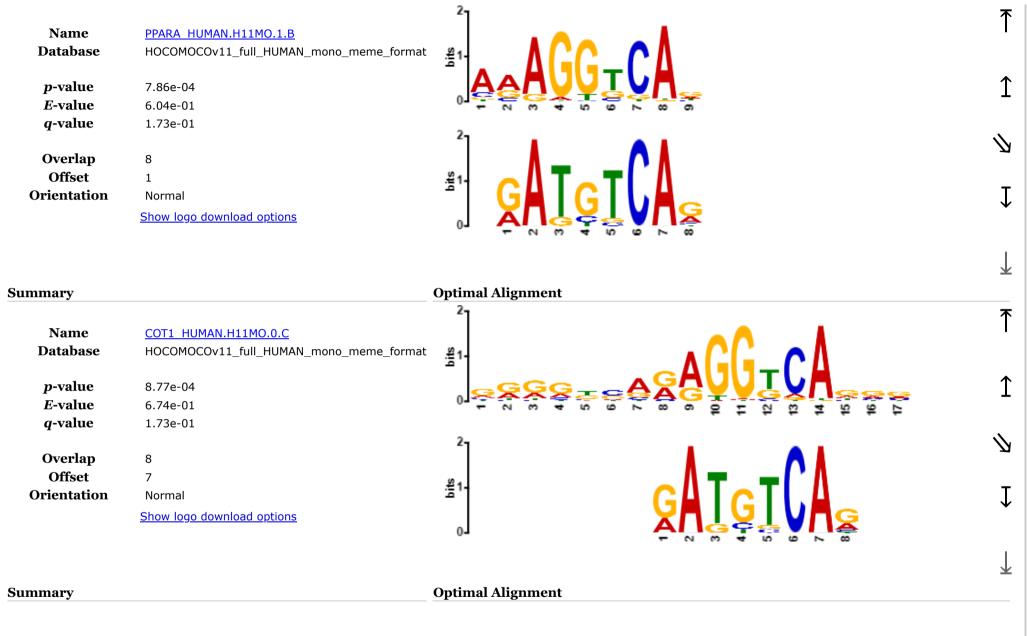


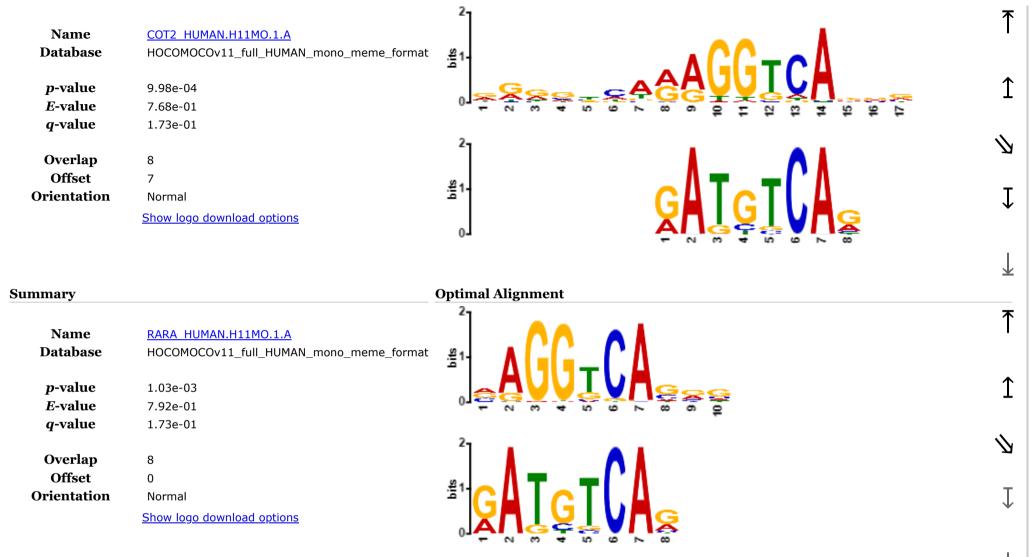




**Optimal Alignment** 

**Summary** 





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Alphabet

Source: the query file

Name	Bg.				Bg.	Name
Adenine	0.25	Α	~	Т	0.25	Thymine
Cytosine	0.25	С	~	G	0.25	Guanine

### **Other Settings**

**Strand Handling** Motifs may be reverse complemented before comparison to find a better match.

**Distance Measure** Pearson correlation coefficient

**Match Threshold** Matches must have a *E*-value of 1 or smaller.

**Previous Top** 

### Tomtom version

5.5.1 (Release date: Sun Jan 29 10:33:12 2023 -0800)

### Reference

Shobhit Gupta, JA Stamatoyannopolous, Timothy Bailey and William Stafford Noble, "Quantifying similarity between motifs", Genome Biology, 8(2):R24, 2007. [full text]

### Command line

tomtom -verbosity 1 -oc streme\_tomtom\_out -min-overlap 5 -dist pearson -evalue -thresh 1 -no-ssc streme\_out/streme.xml

Result calculation took 2.771 seconds