Matrix Overview what is this?

Consensus sequence logo

Reverse complement

Nucleotide position frequency

A	C	G	T	Consensus
10	20	4	6	C
6	11	17	6	N
14	12	13	1	N
0	0	0	40	T
0	1	39	0	G
40	0	0	0	A
0	32	2	6	C
0	1	39	0	G
4	9	0	27	T
14	19	3	4	M
23	4	7	6	A

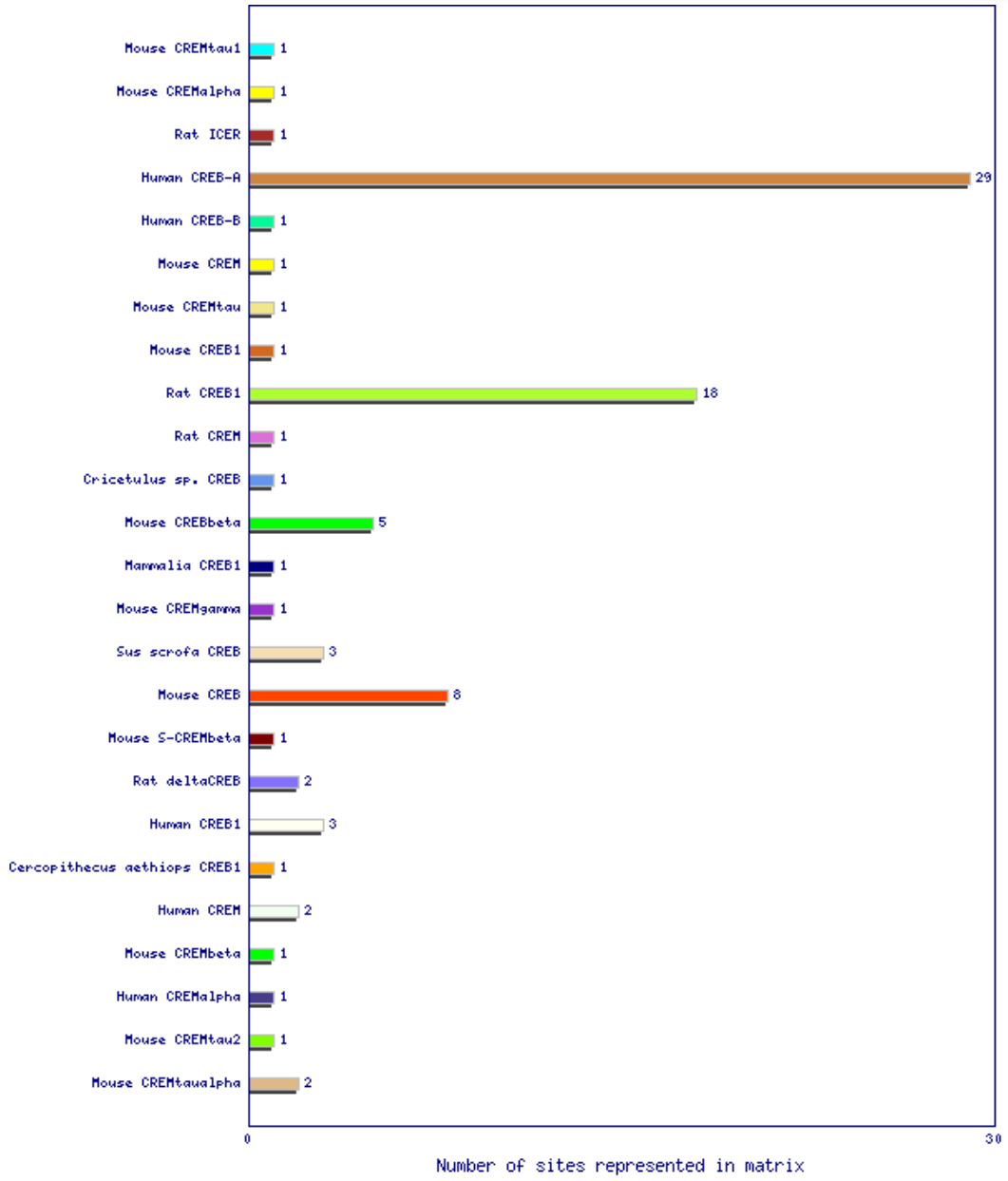
Nucleotide position frequency

A	C	G	T	Consensus
6	7	4	23	T
4	3	19	14	K
27	0	9	4	A
0	39	1	0	C
6	2	32	0	G
0	0	0	40	T
0	39	1	0	C
40	0	0	0	A
1	13	12	14	N
6	17	11	6	N
6	4	20	10	G

Experimental basis for positional weight matrix construction what is this?

Transcription factors

Human CREB-A
Human CREB1
Human CREMalpha
Human CREB-B
Human CREM
Mouse CREB1
Mouse CREBbeta
Mouse S-CREMbeta
Mouse CREMbeta
Mouse CREMtau1
Mouse CREMalpha
Mouse CREM
Mouse CREMtau
Mouse CREMgamma
Mouse CREB
Mouse CREMtau2
Mouse CREMtaualpha
Rat ICER
Rat CREM
Rat CREB1
Rat deltaCREB
Mammalia CREB1



Aligned sites (40)

Show 5 entries Search:

Sequence	Transcription factors	Bound Gene	Experimental evidence	Experimental source	References
AAATGACGTAA	CREB-A(h) [details]	E4(AD) [details]	CI DM FA FO GS SS IP SE OT	rec(human-E.coli) [more...]	54 , 64 , 82
AAATGACGTAA	CREB-A(h) [details]	E4(AD) [details]	CI DM FA FO GS SS IP SE OT	HeLa [more...]	54
AAGTGACGTAA	CREB-B(h) [details]	E4(AD) [details]	CI DM FA FO GS SS IP SE OT	HeLa [more...]	24 , 29 , 37 , 44 , 76 , 83 , 107
ACGTCATGTCT			CI DM FA FO GS SS IP SE OT		
AGATGACGCAT	CREB-A(h) [details]	HLA-DRA(h) [details]	CI DM FA FO GS SS IP SE OT	Raji [more...]	12 , 13 , 20 , 68 , 90 , 91 , 102 , 110

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Matrix type : family matrix

Matrix Category : matrix compiled from individual genomic sites

Matrix classification : BZIP Find all matrices in this class →

Application details : compiled and aligned by TRANSFAC; sites quality 6 or better

Number of sequences used : 40

Additional transcription factors linked to the matrix : ICER-xbb1(h), CREB(b), CREMdeltaC-F(r), S-CREM(m), CREB1(b), CREB(mv), CREM-Ib(h), ICER-I(m), CREBomega(m), deltaCREB(m), CREM-isoform1(b), CREMtau(r), CREM-isoform2(b), ICER-IIgamma(m), CREM(b), CREMtau(m.s.), CREMdeltaC-G(r), CREM(m.s.), CREB1(s), CREM-Ia(h), ICER-II(m), CREMepsilon(m), CREM-isoform8(h), ICER-

Profile membership what is this?

Profiles which include this matrix : lung-specific profile, redox-sensitive profile, cell cycle-specific profile, liver-specific profile, pancreatic beta-cell-specific profile, pituitary-specific profile, nerve system specific profile

Related matrices what is this?

Show 5 entries Search:

Related family matrices	Consensus binding sequence derived from Positional Weight Matrix	Category method
	V$CREB_Q3	matrix compiled from individual genomic sites
	V$CREB_Q2_01	matrix compiled from individual genomic sites
	V$CREBATF_Q6	matrix compiled from individual genomic sites

Showing 1 to 3 of 3 entries First Previous 1 Next Last

Show 5 entries Search:

Related factor-specific matrices	Consensus binding sequence derived from Positional Weight Matrix	Category method	Recommended factor-specific matrix
	V$CREB1_03	ChIP-Seq	
	V$CREB1_04	ChIP-Seq	
	V$CREB1_05	ChIP-Seq	
	V$CREB1_06	ChIP-Seq	
	V$CREB1_16	ChIP-Seq	

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Identifiers what is this?

BIOBASE accession : M00917

References (115)

Show 5 entries Search:

Sl.No	PMID	Citation
1	20171190	Thonpho, A., Sereeruk, C., Rojvirat, P., Jitrapakdee, S., Identification of the cyclic AMP responsive element (CRE) that mediates transcriptional regulation of the pyruvate carboxylase gene in HepG2 cells. Biochem Biophys Res Commun 393 (4) 714-9 (2010). Show abstract
2	20022930	Seo, H. Y., Kim, M. K., Min, A. K., Kim, H. S., Ryu, S. Y., Kim, N. K., Lee, K. M., Kim, H. J., Choi, H. S., Lee, K. U., Park, K. G., Lee, I. K., Endoplasmic reticulum stress-induced activation of activating transcription factor 6 decreases cAMP-stimulated hepatic gluconeogenesis via inhibition of CREB. Endocrinology 151 (2) 561-8
		CRE2 sequence. Biochim Biophys Acta 1769 (2) 79-91 (2007). Show abstract
4	15322221	Kyttaris, V. C., Juang, Y. T., Tenbrock, K., Weinstein, A., Tsokos, G. C., Cyclic adenosine 5'-monophosphate response element modulator is responsible for the decreased expression of c-fos and activator protein-1 binding in T cells from patients with systemic lupus erythematosus. J Immunol 173 (5) 3557-63 (2004). Show abstract
5	12164863	Eberhardt, W., Engels, C., Muller, R., Pfeilschifter, J., Mechanisms of dexamethasone-mediated inhibition of cAMP-induced tPA expression in rat mesangial cells. Kidney Int 62 (3) 809-21 (2002). Show abstract

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