

Rabbit CREB Polyclonal Antibody | anti-CREB antibody

Phospho-CREB (Ser271) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329290	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry

PRODUCT SYNONYMS

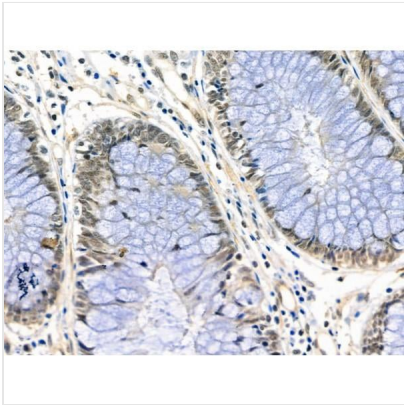
CREB; Polyclonal Antibody; Phospho-CREB (Ser271) Antibody; Active transcription factor CREB; cAMP response element binding protein 1; cAMP response element binding protein; cAMP responsive element binding protein 1; cAMP-responsive element-binding protein 1; CREB-1; CREB1; CREB1_HUMAN; Cyclic AMP-responsive element-binding protein 1; MGC9284; OTTHUMP00000163864; OTTHUMP00000163865; OTTHUMP00000206660; OTTHUMP00000206662; OTTHUMP00000206667; Transactivator protein; anti-CREB antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-CREB (Ser271) Antibody detects endogenous levels of CREB only when phosphorylated at Ser271.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-CREB antibody	ELISA (Peptide ELISA), IHC (Immunohistochemistry)
Immunogen	A synthesized peptide derived from human CREB around the phosphorylation site of Ser271.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Stimulated by phosphorylation. Phosphorylation of both Ser-133 and Ser-142 in the SCN regulates the activity of CREB and participates in circadian rhythm generation. Phosphorylation of Ser-133 allows CREBBP binding. In liver, phosphorylation is induced by fasting or glucagon in a circadian fashion (By similarity). CREBL2 positively regulates phosphorylation at Ser-133 thereby stimulating CREB1 transcriptional activity (By similarity). Phosphorylated upon calcium influx by CaMK4 and CaMK2 on Ser-133. CaMK4 is much more potent than CaMK2 in activating CREB. Phosphorylated by CaMK2 on Ser-142. Phosphorylation of Ser-142 blocks CREB-mediated transcription even when Ser-133 is phosphorylated. Phosphorylated by CaMK1 (By similarity). Phosphorylation of Ser-271 by HIPK2 in response to genotoxic stress promotes CREB1 activity, facilitating the recruitment of the coactivator CBP. Phosphorylated at Ser-133 by RPS6KA3, RPS6KA4 and RPS6KA5 in response to mitogenic or stress stimuli. Phosphorylated by TSSK4 on Ser-133. Sumoylated with SUMO1. Sumoylation on Lys-304, but not on Lys-285, is required for nuclear localization of this protein. Sumoylation is enhanced under hypoxia, promoting nuclear localization and stabilization.
Subunit Structure	Interacts with PPRC1. Binds DNA as a dimer. This dimer is stabilized by magnesium ions. Interacts, through the bZIP domain, with the coactivators TORC1/CRTC1, TORC2/CRTC2 and TORC3/CRTC3. When phosphorylated on Ser-133, binds CREBBP (By similarity). Interacts with CREBL2; regulates CREB1 phosphorylation, stability and transcriptional activity (By similarity). Interacts (phosphorylated form) with TOX3. Interacts with ARRB1. Binds to HIPK2. Interacts with SGK1. Interacts with TSSK4; this interaction facilitates phosphorylation on Ser-133. Forms a complex with KMT2A and CREBBP. (Microbial infection) Interacts with hepatitis B virus/HBV protein X. (Microbial infection) Interacts with HTLV-1 protein Tax.

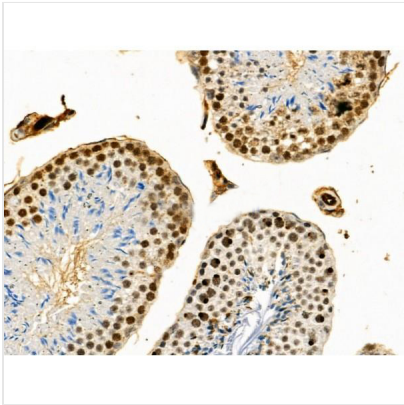
Similarity	Belongs to the bZIP family.
Subcellular Location	Nucleus.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemisry)

At 1/100 staining Human colorectal cancer by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohiostchemistry)

Staining Mouse testis tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)

At 1/100 staining Mouse muscle tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-CREB antibody	Phosphorylation-dependent transcription factor that stimulates transcription upon binding to the DNA cAMP response element (CRE), a sequence present in many viral and cellular promoters. Transcription activation is enhanced by the TORC coactivators which act independently of Ser-133 phosphorylation. Involved in different cellular processes including the synchronization of circadian rhythmicity and the differentiation of adipose cells.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4758054
NCBI GeneID	1385
NCBI Accession #	NP_004370.1
NCBI GenBank Nucleotide #	NM_004379.3

UniProt Accession #	P16220; P21934; Q6V963; Q9UMA7
Molecular Weight	36,688 Da
NCBI Official Full Name	cyclic AMP-responsive element-binding protein 1 isoform A
NCBI Official Synonym Full Names	cAMP responsive element binding protein 1
NCBI Official Symbol	CREB1
NCBI Official Synonym Symbols	CREB
NCBI Protein Information	cyclic AMP-responsive element-binding protein 1; CREB-1; transactivator protein; active transcription factor CREB; cAMP-response element-binding protein-1; cAMP-responsive element-binding protein 1
UniProt Protein Name	Cyclic AMP-responsive element-binding protein 1
UniProt Gene Name	CREB1
UniProt Synonym Gene Names	CREB-1
UniProt Entry Name	CREB1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/polyclonal/creb-antibody-peptide-elisa-immunohistochemistry-elisa/329290>