

Rabbit anti-Rat CREB (Ser133) Polyclonal Antibody | anti-CREB1 antibody

Anti-Phospho-Ser133 CREB

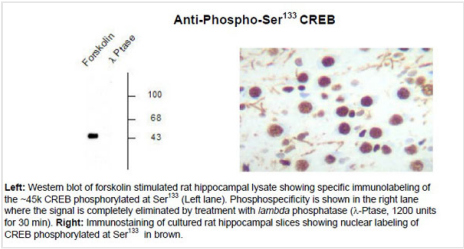
CATALOG # AAA72783	HOST Rabbit	REACTIVITY Rat	APPLICATIONS Immunohistochemistry, Western Blot
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PRODUCT SYNONYMS

CREB (Ser133); Polyclonal Antibody; Anti-Phospho-Ser133 CREB; anti-CREB1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Rat
Clonality	Polyclonal
Specificity	Specific for the ~45k CREB protein phosphorylated at Ser133. Immunolabeling is blocked by lambda-phosphatase treatment.
Purity/Purification	Affinity Purified (Prepared from rabbit serum by affinity purification via sequential chromatography on phospho- and dephosphopeptide affinity columns.)
Form/Format	100 ul in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 ug BSA per ml and 50% glycerol. Adequate amount of material to conduct 10-mini Western Blots.
Sequence Length	341
Applicable Applications for anti-CREB1 antibody	IHC (Immunohistochemistry), WB (Western Blot)
Antigen	Phosphopeptide corresponding to amino acid residues surrounding the phospho-Ser133 of rat CREB.
Immunogen Information	Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser133 conjugated to KLH
Immunogen Species	Rat
Reactivity Assumed Based on 100% Sequence Homology	Bovine, canine, chicken, human, mouse, non-human primate, rat, sheep, Xenopus and zebra fish
Species Reactivity Note	The antibody has been directly tested for reactivity in Western blots with rat tissue. It is anticipated that the antibody will also react with bovine, canine, chicken, human, mouse, non-human primate, rat, sheep, Xenopus and zebra fish based on the fact that these species have 100% homology with the amino acid sequence used as antigen.
Biological Significance	It is well known that the control of gene expression involves activation of protein kinase cascades that regulate transcription factors within the nucleus (Karin and Hunter, 1995). The cyclic AMP response element binding protein (CREB) is one of the best characterized stimulus-induced transcription factors (Montminy, 1997). This transcription factor is a component of intracellular signaling events that regulate a wide range of biological functions, from spermatogenesis to circadian rhythms and memory (Shaywitz and Greenberg, 1999; Silva et al., 1998). A variety of protein kinases including protein kinase A (PKA), mitogen-activated protein kinases (MAPKs), and Ca ²⁺ /calmodulin-dependent protein kinases (CaMKs) phosphorylate CREB at serine 133 (Ser133), and phosphorylation of Ser133 are required for CREB-mediated transcription (Johannessen et al., 2004; Kornhauser et al., 2002).
Preparation and Storage	For long term storage -20 degree C is recommended. Stable at -20 degree C for at least 1 year.



Application Data

ADDITIONAL INFORMATION

Related Product Information for anti-CREB1 antibody	Affinity purified rabbit polyclonal antibody
References	• Johannessen M, Delghandi MP, Moens U (2004) What turns CREB on Cellular Signalling 16:1211-1227. • Karin M, Hunter T (1995) Transcriptional control by protein phosphorylation: Signal transmission from the cell surface to the nucleus. Curr Biol 5:747-757. • Kornhauser JM, Cowan CW, Shaywitz AJ, Dolmetsch RE, Griffith EC, Hu LS, Haddad C, Xia ZG, Greenberg ME (2002) CREB transcriptional activity in neurons is regulated by multiple, calcium-specific phosphorylation events. Neuron 34:221-233. • Montminy M (1997) Transcriptional regulation by cyclic AMP. Annu Rev Biochem 66:807-822. • Shaywitz AJ, Greenberg ME (1999) CREB: A stimulus-induced transcription factor activated by a diverse array of extracellular signals. Annu Rev Biochem 68:821-861. • Silva AJ, Kogan JH, Frankland PW, Kida S (1998) CREB and memory. Annu Rev Neurosci 21:127-148.

NCBI AND UNIPROT INFORMATION

NCBI GI #	13591924
NCBI GeneID	81646
NCBI Accession #	NP_112279.1
NCBI GenBank Nucleotide #	NM_031017.1
UniProt Accession #	P15337
Molecular Weight	45
NCBI Official Full Name	cyclic AMP-responsive element-binding protein 1 isoform B
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; Y protein; 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; CREB-1
UniProt Entry Name	CREB1_RAT

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.