



# CREB-1(Phospho Ser133) Rabbit mAb

<b>Catalog No</b>	YP-rAb-17496
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human,Mouse,Rat,Pig
<b>Applications</b>	WB,IHC,IF,IP,ELISA
<b>Gene Name</b>	CREB1
<b>Protein Name</b>	Cyclic AMP-responsive element-binding protein 1
<b>Purification Process</b>	Protein A
<b>Specificity</b>	Phospho-CREB-1 (S133) Antibody detects endogenous levels of CREB-1 protein only when phosphorylated at S133. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):RPsYR
<b>Formulation</b>	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
<b>Source</b>	Monoclonal, Rabbit,IgG
<b>Dilution</b>	IHC 1:1000-1:4000; WB 1:2000-1:10000; IF 1:200-1:1000; ELISA 1:5000-1:20000; IP 1:50-1:200; Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0
<b>Concentration</b>	0.5 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-15° C to -25° C/1 year(Do not lower than -25° C)
<b>Synonyms</b>	CREB1 ; Cyclic AMP-responsive element-binding protein 1 ; CREB-1 ; cAMP-responsive element-binding protein 1
<b>Observed Band</b>	43kD
<b>Calculated Molecular Weight</b>	37kD
<b>Cell Pathway</b>	Nucleus .
<b>Tissue Specificity</b>	Eye,Placenta,Spleen,Testis,
<b>Function</b>	Disease:A chromosomal aberration involving CREB1 is associated with angiomatoid fibrous histiocytoma (AFH) [MIM:612160]. Translocation t(2;22)(q33;q12) with CREB1 generates a EWSR1/CREB1 fusion gene that is most common genetic abnormality in this tumor type.,Function:This protein binds





the cAMP response element (CRE), a sequence present in many viral and cellular promoters. CREB stimulates transcription on binding to the CRE. Transcription activation is enhanced by the TORC coactivators which act independently of Ser-133 phosphorylation. Implicated in synchronization of circadian rhythmicity.,PTM: 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 (By similarity). Phosphorylated upon DNA damage, probably by ATM or ATR.,similarity: Belongs to the bZIP family.,similarity: Contains 1 bZIP domain.,similarity: Contains 1 KID (kinase-inducible) domain.,subunit: 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.,

### Background

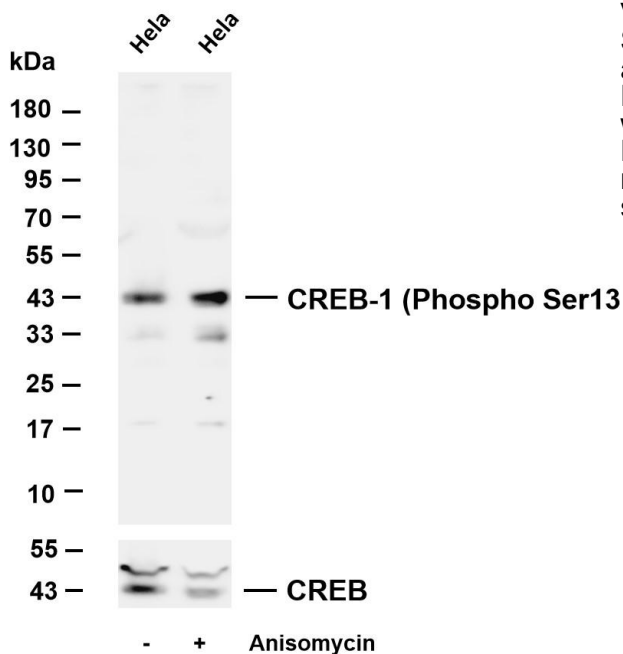
This gene encodes a transcription factor that is a member of the leucine zipper family of DNA binding proteins. This protein binds as a homodimer to the cAMP-responsive element, an octameric palindrome. The protein is phosphorylated by several protein kinases, and induces transcription of genes in response to hormonal stimulation of the cAMP pathway. Alternate splicing of this gene results in several transcript variants encoding different isoforms. [provided by RefSeq, Mar 2016],

### matters needing attention

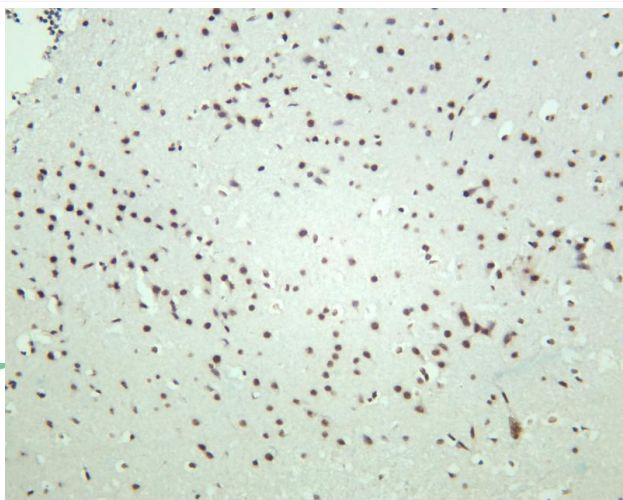
Avoid repeated freezing and thawing!

### Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

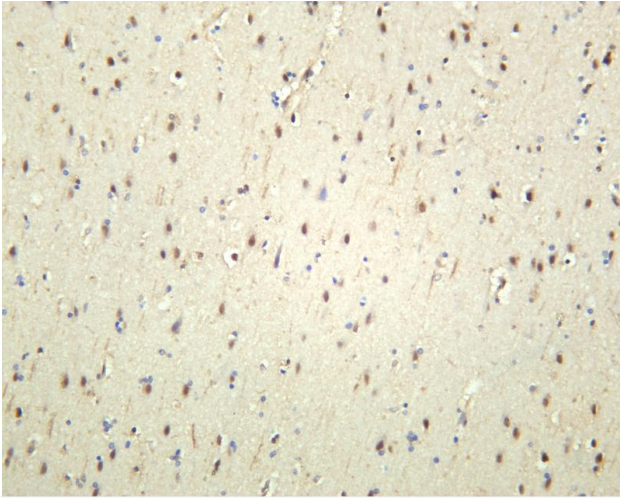


Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-CREB-1 (Phospho Ser133) antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: HeLa Lane 2: HeLa was treated with Anisomycin(250 ng/ml) for 30 minutes Predicted band size: 37kDa Observed band size: 43kDa

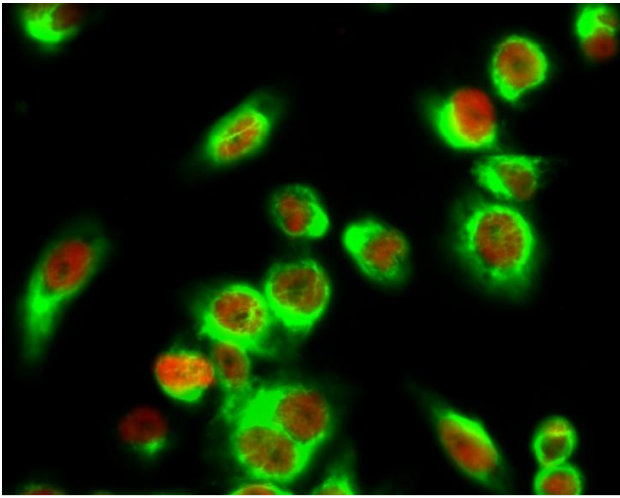


Rat brain was stained with anti-CREB-1 (Phospho Ser133) rabbit antibody

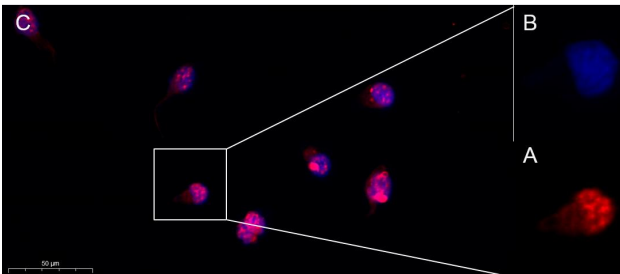




Human brain was stained with anti-CREB-1 (Phospho Ser133) rabbit antibody



Immunofluorescence analysis of HeLa cell. 1, CREB-1 (phospho Ser133) Monoclonal Antibody (red) was diluted at 1:200 (4° overnight).  $\beta$ -Tubulin Monoclonal Antibody (5G3) (green) was diluted at 1:200 (4° overnight). 2, Goat Anti Rabbit Alexa Fluor 594 Catalog: RS3611 was diluted at 1:1000 (room temperature, 50min). Goat Anti Mouse Alexa Fluor 488 Catalog: RS3208 was diluted at 1:1000 (room temperature, 50min).



Immunofluorescence analysis of HeLa . Picture A: CREB-1 (Phospho Ser133) PT? Rabbit mAb (red). Picture B: DAPI (blue). Picture C: Merge of A+B

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