

**Product Name: CREB-1 (phospho Ser142) Rabbit Polyclonal Antibody**  
**Catalog #: APRab04497**

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## Summary

<b>Production Name</b>	CREB-1 (phospho Ser142) Rabbit Polyclonal Antibody
<b>Description</b>	Rabbit Polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB,IHC,IF,ELISA
<b>Reactivity</b>	Human,Mouse,Rat

## Performance

<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Phospho Antibody
<b>Isotype</b>	IgG
<b>Clonality</b>	Polyclonal
<b>Form</b>	Liquid
<b>Storage</b>	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
<b>Buffer</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
<b>Purification</b>	Affinity purification

## Immunogen

<b>Gene Name</b>	CREB1
<b>Alternative Names</b>	CREB1; Cyclic AMP-responsive element-binding protein 1; CREB-1; cAMP-responsive element-binding protein 1
<b>Gene ID</b>	1385.0
<b>SwissProt ID</b>	P16220.The antiserum was produced against synthesized peptide derived from human CREB around the phosphorylation site of Ser142. AA range:111-160

## Application

<b>Dilution Ratio</b>	WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:40000. Not yet tested in other applications.
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**Molecular Weight** 37kD

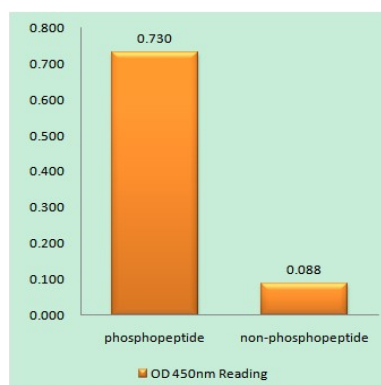
## Background

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],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.,

## Research Area

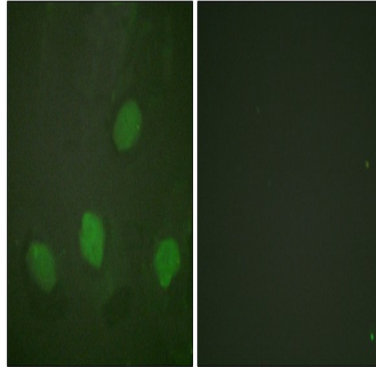
Antigen processing and presentation;Melanogenesis;Huntington's disease;Prostate cancer;

## Image Data

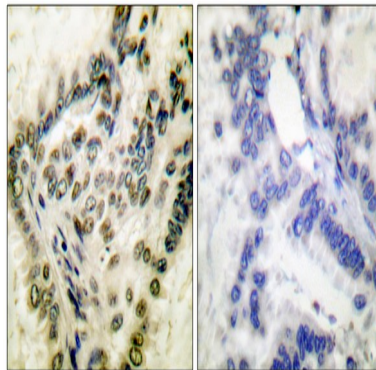


Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right) , using CREB (Phospho-Ser142) Antibody

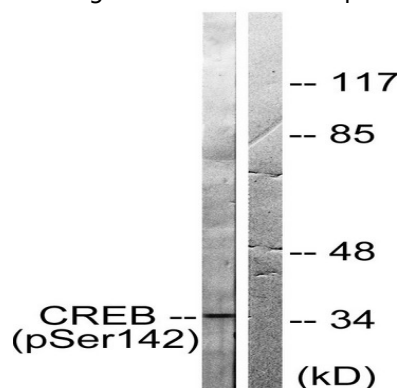
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Immunofluorescence analysis of HeLa cells, using CREB (Phospho-Ser142) Antibody. The picture on the right is blocked with the phospho peptide.

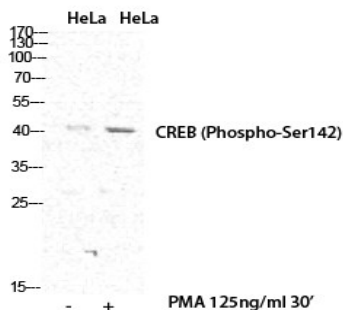


Immunohistochemistry analysis of paraffin-embedded human lung carcinoma, using CREB (Phospho-Ser142) Antibody. The picture on the right is blocked with the phospho peptide.

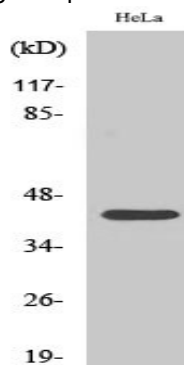


Western blot analysis of lysates from HeLa cells treated with PMA 125ng/ml 30', using CREB (Phospho-Ser142) Antibody. The lane on the right is blocked with the phospho peptide.

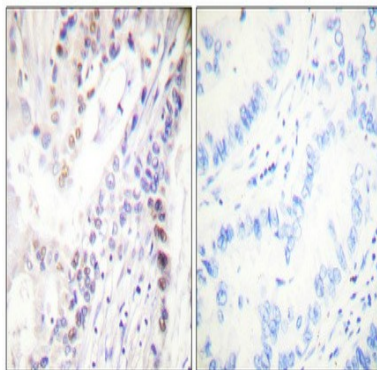
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Western Blot analysis of various cells using Phospho-CREB-1 (S142) Polyclonal Antibody diluted at 1: 500



Western Blot analysis of HeLa cells using Phospho-CREB-1 (S142) Polyclonal Antibody diluted at 1: 500



Immunohistochemical analysis of paraffin-embedded Human lung cancer. Antibody was diluted at 1:100 (4°,overnight) . High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negative contrl (right) obtained from antibody was pre-absorbed by immunogen peptide.

## Note

For research use only.