

### Anti-CREB antibody ab31387

★★★★★ [4 Abreviews](#) [63 References](#) [3 Images](#)

#### Overview

<b>Product name</b>	Anti-CREB antibody
<b>Description</b>	Rabbit polyclonal to CREB
<b>Host species</b>	Rabbit
<b>Specificity</b>	Immunogen has 92% alignment to ATF-1
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide (Human) - non-phosphopeptide derived from human CREB around the phosphorylation site of Serine 133.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	<p>pH: 7</p> <p>Preservative: 0.02% Sodium azide</p> <p>Constituents: PBS, 50% Glycerol, 0.87% Sodium chloride</p> <p>Without Mg<sup>2+</sup> and Ca<sup>2+</sup></p>
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab31387 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (1)	1/500 - 1/1000. Predicted molecular weight: 37 kDa.
IHC-P		Use at an assay dependent concentration.

## Target

### 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.

### Involvement in disease

Defects in CREB1 may be a cause of angiomatoid fibrous histiocyoma (AFH) [MIM:612160]. A distinct variant of malignant fibrous histiocyoma that typically occurs in children and adolescents and is manifest by nodular subcutaneous growth. Characteristic microscopic features include lobulated sheets of histiocyte-like cells intimately associated with areas of hemorrhage and cystic pseudovascular spaces, as well as a striking cuffing of inflammatory cells, mimicking a lymph node metastasis. Note=A chromosomal aberration involving CREB1 is found in a patient with angiomatoid fibrous histiocyoma. Translocation t(2;22)(q33;q12) with CREB1 generates a EWSR1/CREB1 fusion gene that is most common genetic abnormality in this tumor type.

### Sequence similarities

Belongs to the bZIP family.  
Contains 1 bZIP domain.  
Contains 1 KID (kinase-inducible) domain.

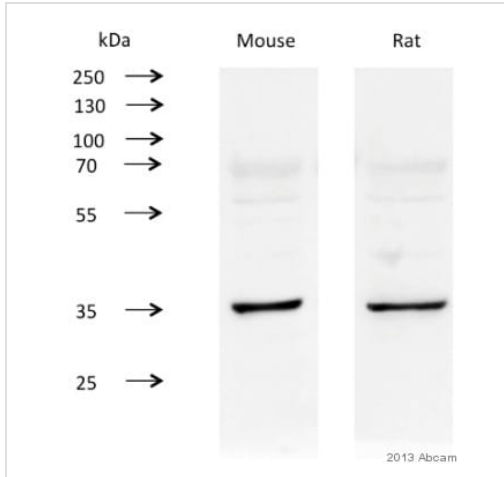
### Post-translational modifications

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 (By similarity). Phosphorylated upon DNA damage, probably by ATM or ATR.  
Sumoylated by 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.

### Cellular localization

Nucleus.

## Images



Western blot - Anti-CREB antibody (ab31387)

This image is courtesy of an anonymous Abreview

**All lanes :** Anti-CREB antibody (ab31387) at 1/1000 dilution

**Lane 1 :** Mouse primary hippocampal neurons whole cell lysate

**Lane 2 :** Rat primary hippocampal neurons whole cell lysate

Lysates/proteins at 30 µg per lane.

### Secondary

**All lanes :** Undiluted HRP-conjugated Goat anti-rabbit IgG polyclonal

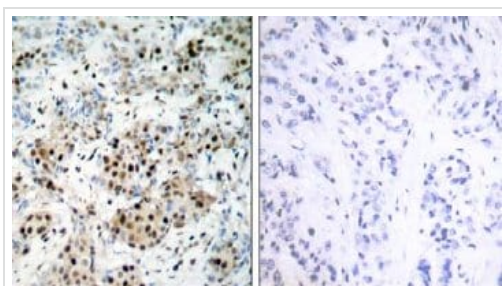
Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 37 kDa

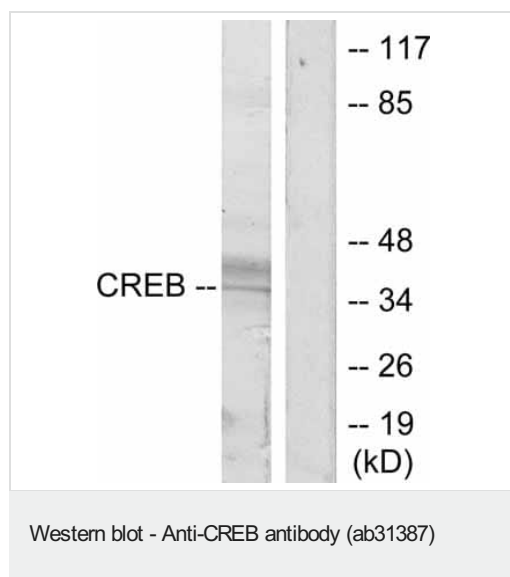
**Observed band size:** 37 kDa

**Exposure time:** 10 seconds



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CREB antibody (ab31387)

Immunohistochemical analysis of paraffin embedded breast carcinoma tissue sections, using 1/50 ab31387. Left: Untreated sample; Right: Sample treated with synthesized peptide (negative control).



**Lane 1 :** Anti-CREB antibody (ab31387) at 1/500 dilution

**Lane 2 :** Anti-CREB antibody (ab31387) at 1/500 dilution (treated with synthesized peptide )

**All lanes :** HeLa cell extract

**Predicted band size:** 37 kDa

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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