

For Research Use Only

# CoraLite® Plus 488-conjugated CREB1 Polyclonal antibody



Catalog Number: CL488-12208

Featured Product

## Basic Information

<b>Catalog Number:</b> CL488-12208	<b>GenBank Accession Number:</b> BC010636	<b>Purification Method:</b> Antigen affinity purification
<b>Size:</b> 100ul , Concentration: 1000 µg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 1385	<b>Recommended Dilutions:</b> IF 1:50-1:500
<b>Source:</b> Rabbit	<b>Full Name:</b> cAMP responsive element binding protein 1	<b>Excitation/Emission maxima wavelengths:</b> 488 nm / 515 nm
<b>Isotype:</b> IgG	<b>Calculated MW:</b> 341 aa, 35 kDa	
<b>Immunogen Catalog Number:</b> AG2852	<b>Observed MW:</b> 43-46 kDa	

## Applications

<b>Tested Applications:</b> FC (Intra), IF	<b>Positive Controls:</b> IF : HeLa cells,
<b>Species Specificity:</b> human, mouse, rat, monkey	

## Background Information

CREB1, also named as CREB, belongs to the bZIP family, containing one bZIP domain and one KID (kinase-inducible) domain. 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. This protein is 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. Transcription activation is enhanced by the TORC coactivators which act independently of Ser-133 phosphorylation. CREB1 is 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. Defects in CREB1 may be a cause of angiomatoid fibrous histiocytoma (AFH), a distinct variant of malignant fibrous histiocytoma that typically occurs in children and adolescents and is manifest by nodular subcutaneous growth. A chromosomal aberration involving CREB1 is found in a patient with angiomatoid fibrous histiocytoma. Translocation t(2;22)(q33;q12) with CREB1 generates a EWSR1/CREB1 fusion gene that is most common genetic abnormality in this tumor type. CREB1 exists some isoforms and range of calculated molecular weight of isoforms are 35-37 kDa and 25 kDa, but the modified CREB1 protein is about 43 kDa (PMID: 25883219).

## Storage

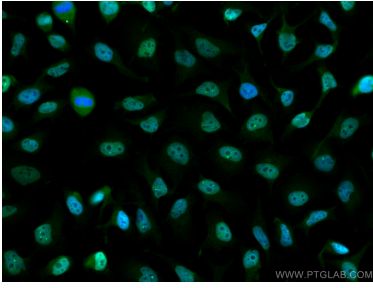
**Storage:**  
Store at -20°C. Avoid exposure to light.  
**Storage Buffer:**  
PBS with 50% Glycerol, 0.05% Proclin300, 0.5% BSA, pH 7.3.  
**Aliquoting is unnecessary for -20°C storage**

\*\*\* 20ul sizes contain 0.1% BSA

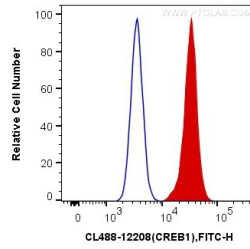
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: proteintech@ptglab.com  
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

## Selected Validation Data



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using CoraLite® Plus 488 CREB1 antibody (CL488-12208) at dilution of 1:100.



1X10<sup>6</sup> HeLa cells were intracellularly stained with 0.4 ug CoraLite® Plus 488 Anti-Human CREB1 (CL488-12208) (red), or 0.4 ug Control Antibody. Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).