

# CoraLite® Plus 647-conjugated CREB1 Polyclonal antibody

Catalog Number: CL647-12208

Featured Product

## Basic Information

## Catalog Number:

CL647-12208

## Size:

100ul, Concentration: 1000 µg/ml by Nanodrop;

## Source:

Rabbit

## Isotype:

IgG

## Immunogen Catalog Number:

AG2852

## GenBank Accession Number:

BC010636

## GeneID (NCBI):

1385

## UNIPROT ID:

P16220

## Full Name:

cAMP responsive element binding protein 1

## Calculated MW:

341 aa, 35 kDa

## Observed MW:

43-46 kDa

## Purification Method:

Antigen affinity purification

## Excitation/Emission maxima wavelengths:

654 nm / 674 nm

## Applications

## Tested Applications:

FC (Intra)

## Species Specificity:

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. Stable for one year after shipment.

## Storage Buffer:

PBS with 50% Glycerol, 0.05% Proclin300, 0.5% BSA, pH 7.3.

Aliquoting is unnecessary for -20°C storage

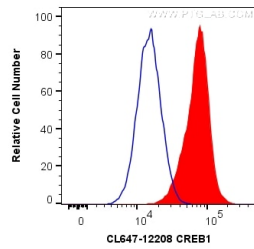
For technical support and original validation data for this product please contact:

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## Selected Validation Data



1X10<sup>6</sup> HeLa cells were intracellularly stained with 0.2 ug CoraLite® Plus 647 Anti-Human CREB1 (CL647-12208) (red), or 0.2 ug Isotype Control (blue). Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).