

For Research Use Only

CoraLite® Plus 488-conjugated CREB1 Polyclonal antibody

Catalog Number: CL488-12208

Featured Product



Basic Information

Catalog Number:

CL488-12208

Concentration:

1000 µg/ml

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

Recommended Dilutions:

IF/ICC: 1:50-1:500

FC (Intra): 0.40 µg per 10⁶ cells in a 100 µl suspension

Excitation/Emission maxima wavelengths:

493 nm / 522 nm

Applications

Tested Applications:

IF/ICC, FC (Intra)

Species Specificity:

human, mouse, rat, monkey

Positive Controls:

IF/ICC: HeLa cells,

FC (Intra): HeLa cells,

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, pH7.3

Aliquoting is unnecessary for -20°C storage

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

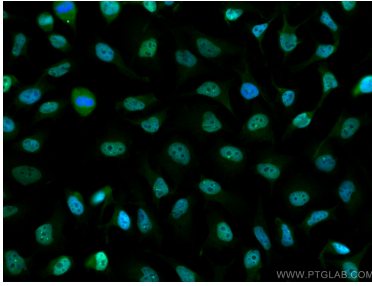
T: 4006900926

E: Proteintech-CN@ptglab.com

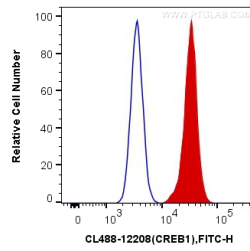
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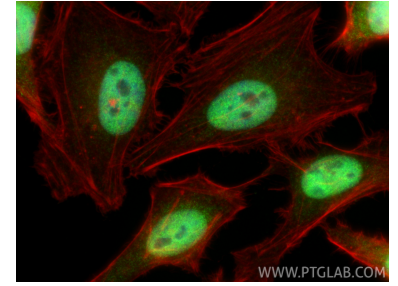
Selected Validation Data



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



1X10⁶ 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).



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