

For Research Use Only

CoraLite® Plus 647-conjugated CREB1 Polyclonal antibody



Catalog Number: CL647-12208

Featured Product

Basic Information

Catalog Number: CL647-12208	GenBank Accession Number: BC010636	Purification Method: Antigen affinity purification
Size: 100ul , Concentration: 1000 µg/ml by Nanodrop;	GeneID (NCBI): 1385	Excitation/Emission maxima wavelengths: 654 nm / 674 nm
Source: Rabbit	Full Name: cAMP responsive element binding protein 1	
Isotype: IgG	Calculated MW: 341 aa, 35 kDa	
Immunogen Catalog Number: AG2852	Observed MW: 43-46 kDa	

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.

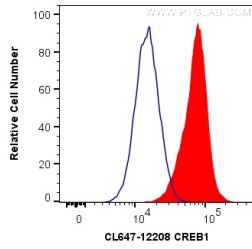
Aliquoting is unnecessary for -20°C storage

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

Selected Validation Data



1X10⁶ 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).