

For Research Use Only

CREB1 Monoclonal antibody, PBS Only

Catalog Number: 67927-1-PBS

Featured Product



Basic Information

Catalog Number: 67927-1-PBS	GenBank Accession Number: BC010636	Purification Method: Protein A purification
Size: 100ug, Concentration: 1mg/ml by Nanodrop;	GeneID (NCBI): 1385	CloneNo.: 1E11C1
Source: Mouse	UNIPROT ID: P16220	
Isotype: IgG1	Full Name: cAMP responsive element binding protein 1	
Immunogen Catalog Number: AG2852	Calculated MW: 341 aa, 35 kDa	
	Observed MW: 43-46 kDa	

Applications

Tested Applications:
WB, IHC, IF/ICC, Indirect ELISA

Species Specificity:
human, mouse, rat

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

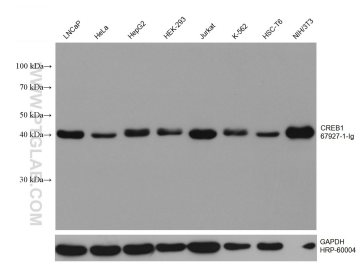
Storage:
Store at -80°C.

Storage Buffer:
PBS only, pH7.3

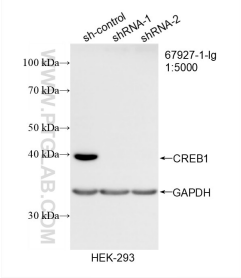
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

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

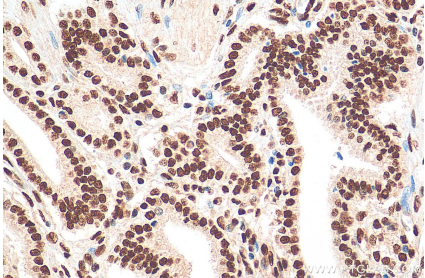
Selected Validation Data



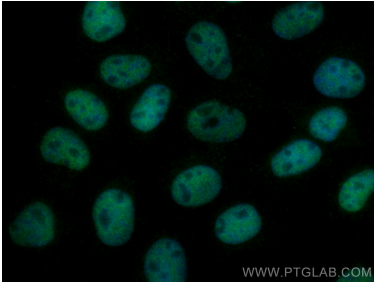
Various lysates were subjected to SDS PAGE followed by western blot with 67927-1-Ig (CREB1 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated GAPDH Monoclonal antibody (HRP-60004) as loading control. This data was developed using the same antibody clone with 67927-1-PBS in a different storage buffer formulation.



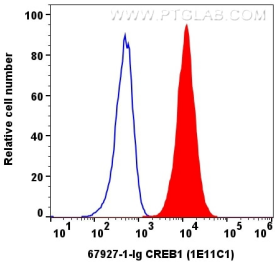
WB result of CREB1 antibody (67927-1-Ig; 1:5000; incubated at room temperature for 1.5 hours) with sh-Control and sh-CREB1 transfected HEK-293 cells. This data was developed using the same antibody clone with 67927-1-PBS in a different storage buffer formulation.



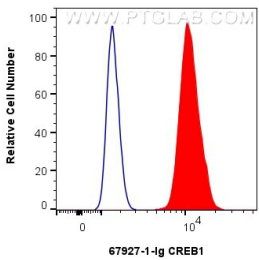
Immunohistochemical analysis of paraffin-embedded human prostate cancer tissue slide using 67927-1-Ig (CREB1 antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 67927-1-PBS in a different storage buffer formulation.



Immunofluorescent analysis of (4% PFA) fixed A431 cells using CREB1 antibody (67927-1-Ig, Clone: 1E11C1) at dilution of 1:8000 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L). This data was developed using the same antibody clone with 67927-1-PBS in a different storage buffer formulation.



1×10^6 Jurkat cells were intracellularly stained with 0.2 μ g CREB1 Monoclonal antibody (67927-1-Ig, Clone:1E11C1,red) and Multi-rAb CoraLite® Plus 647-Goat Anti-Mouse Recombinant Secondary Antibody (H+L)(RGAM005),Mouse IgG1 isotype control (66360-1-Ig, Clone: 1F8D3, blue) was parallel stained as control. Cells were fixed with 4% PFA. This data was developed using the same antibody clone with 67927-1-PBS in a different storage buffer formulation.



1×10^6 HEK-293 cells were intracellularly stained with 0.25 μ g CREB1 Monoclonal antibody (67927-1-Ig, Clone:1E11C1) and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L) (SA00013-1)(red), or 0.25 μ g Mouse IgG1 isotype control Mouse McAb (66360-1-Ig, Clone: 1F8D3) (blue). Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011). This data was developed using the same antibody clone with 67927-1-PBS in a different storage