

For Research Use Only

CREB1 Monoclonal antibody, PBS Only

Catalog Number: 67927-1-PBS

Featured Product



Basic Information

Catalog Number:

67927-1-PBS

Concentration:

1mg/ml

Source:

Mouse

Isotype:

IgG1

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:

Protein A purification

CloneNo.:

1E11C1

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.

The product is shipped with ice packs. Upon receipt, store it immediately at -80°C

Storage Buffer:

PBS only, pH7.3

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

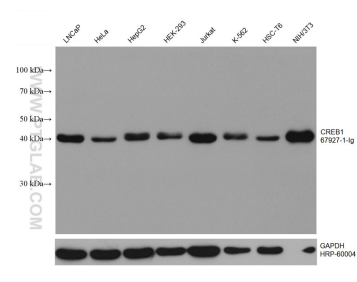
T: 4006900926

E: Proteintech-CN@ptglab.com

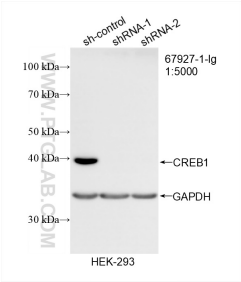
W: ptgcn.com

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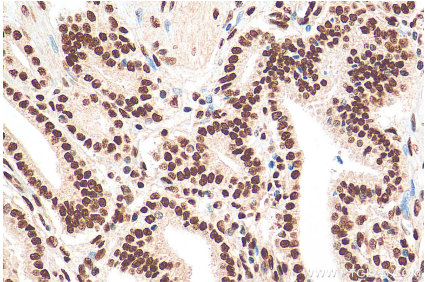
Selected Validation Data



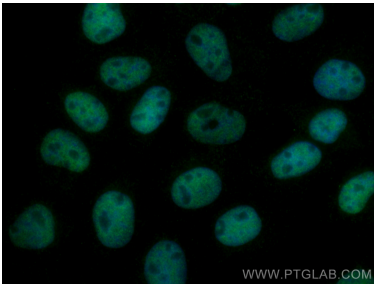
Various lysates were subjected to SDS PAGE followed by western blot with 67927-1-Ig (CREB1 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated GAPDH Monoclonal antibody (HRP-60004) as loading control. This data was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



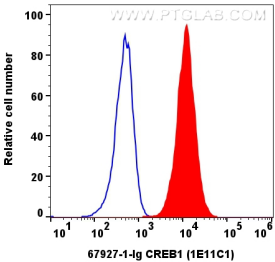
WB result of CREB1 antibody (67927-1-Ig; 1:5000; incubated at room temperature for 1.5 hours) with sh-Control and sh-CREB1 transfected HEK-293 cells. This data was developed using the same antibody clone with 67927-1-PBS in a different storage buffer formulation.



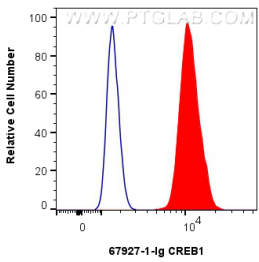
Immunohistochemical analysis of paraffin-embedded human prostate cancer tissue slide using 67927-1-Ig (CREB1 antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 67927-1-PBS in a different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



1x10⁶ 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.



1x10⁶ 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 buffer