10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CREB1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11707c

Product Information

Application	IF, WB, FC, E
Primary Accession	P16220
Other Accession	P15337, Q01147, P27925, NP_004370.1
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Rat, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	35136
Antigen Region	105-132

Additional Information

Gene ID	1385
Other Names	Cyclic AMP-responsive element-binding protein 1, CREB-1, cAMP-responsive element-binding protein 1, CREB1
Target/Specificity	This CREB1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 105-132 amino acids from the Central region of human CREB1.
Dilution	IF~~1:10~50 WB~~1:1000 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CREB1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CREB1
Function	Phosphorylation-dependent transcription factor that stimulates transcription upon binding to the DNA cAMP response element (CRE), a

sequence present in many viral and cellular promoters (By similarity). Transcription activation is enhanced by the TORC coactivators which act independently of Ser-119 phosphorylation (PubMed:14536081). Involved in different cellular processes including the synchronization of circadian rhythmicity and the differentiation of adipose cells (By similarity). Regulates the expression of apoptotic and inflammatory response factors in cardiomyocytes in response to ERFE-mediated activation of AKT signaling (By similarity).

Cellular Location Nucleus {ECO:0000255|PROSITE-ProRule:PRU00312, ECO:0000255|PROSITE-ProRule:PRU00978, ECO:0000269|PubMed:12552083}

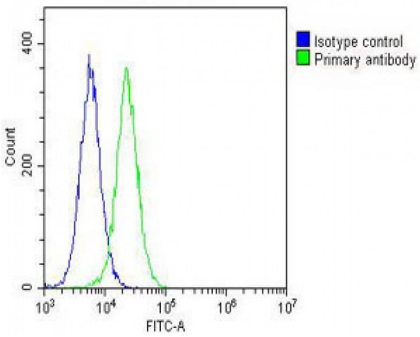
Background

This gene encodes a transcription factor that is a member of the leucine zipper family of DNA binding proteins. This protein binds as a homodimer to the cAMP-responsive element, an octameric palindrome. The protein is phosphorylated by several protein kinases, and induces transcription of genes in response to hormonal stimulation of the cAMP pathway. Alternate splicing of this gene results in two transcript variants encoding different isoforms.

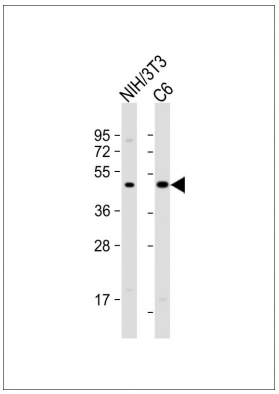
References

Jablonski, K.A., et al. Diabetes 59(10):2672-2681(2010) Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010) Chen, G., et al. J. Neurosci. 30(39):13066-13077(2010) Serretti, A., et al. J Affect Disord (2010) In press : Melnikova, V.O., et al. PLoS ONE 5 (8), E12452 (2010) :

Images

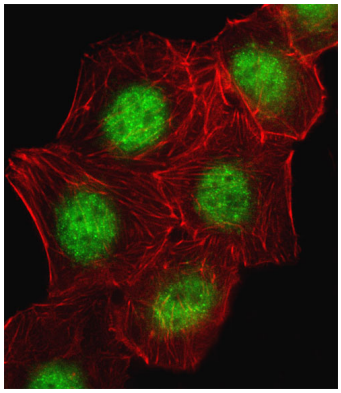


Overlay histogram showing Hela cells stained with AP11707c (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP11707c, 1:25 dilution) for 60 min at 37°C. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(OH191631) at 1/200 dilution for 40 min at 37°C. Isotype control antibody (blue line) was rabbit IgG (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.



All lanes : Anti-CREB1 Antibody (Center) at 1:2000 dilution Lane 1: NIH/3T3 whole cell lysate Lane 2: C6 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 37 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Fluorescent image of A549 cell stained with CREB1



Antibody (Center)(Cat#AP11707c).A549 cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with CREB1 primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37°C).Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37°C).CREB1 immunoreactivity is localized to Nucleus significantly.

Citations

- cis-Acting elements and trans-acting factors in the transcriptional regulation of raf kinase inhibitory protein expression.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.