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

Phospho-CREB(S133) Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3077a

Product Information

Application	WB, IHC-P, IF, IHC-P-Leica, E
Primary Accession	P16220
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB05198
Calculated MW	35136

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 CREB Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S133 of human CREB.
Dilution	WB~~1:1000 IHC-P~~1:100~500 IF~~1:25 IHC-P-Leica~~1:500 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	Phospho-CREB(S133) Antibody 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}

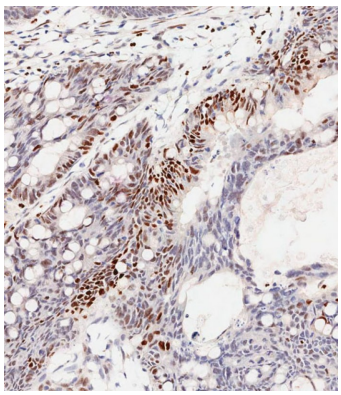
Background

CREB is 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, (CRE), a sequence present in many viral and cellular promoters. The protein is phosphorylated by several protein kinases, and induces transcription of genes in response to hormonal stimulation of the cAMP pathway.

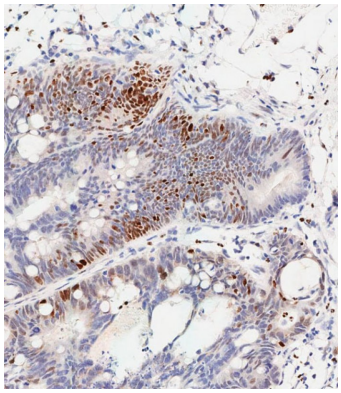
References

Samten, B., et al., J. Immunol. 174(10):6357-6363 (2005).
Zhang, X., et al., Proc. Natl. Acad. Sci. U.S.A. 102(12):4459-4464 (2005).
Cho, K.N., et al., J. Biol. Chem. 280(8):6676-6681 (2005).
Bailey, J., et al., J. Mol. Endocrinol. 34(1):1-17 (2005).
Perry, C., et al., Neoplasia 6(3):279-286 (2004).

Images

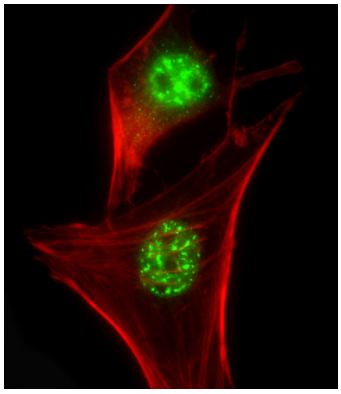


Immunohistochemical analysis of paraffin-embedded Human colon carcinoma tissue using AP3077a performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.

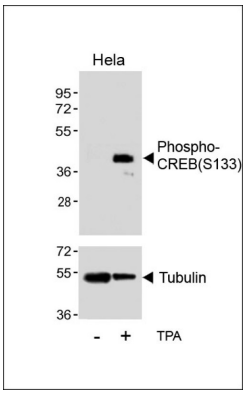


Immunohistochemical analysis of paraffin-embedded Human colon carcinoma tissue using AP3077a performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.

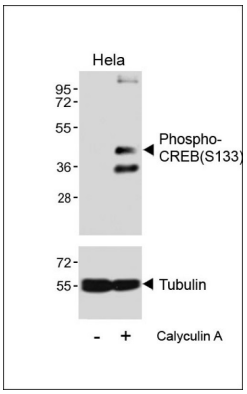
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0. 1% Triton X-100 permeabilized Hela cells labeling CREB1 with AP3077a at



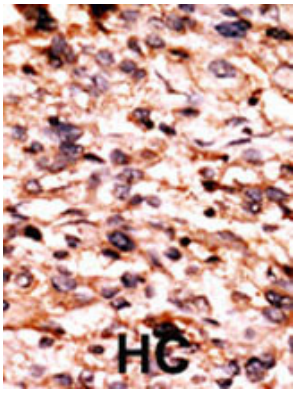
1/25 dilution, followed by Dylight® 488-conjugated goat anti-Rabbit IgG secondary antibody at 1/200 dilution (green). Immunofluorescence image showing Nucleus and Weak Cytoplasm staining on Hela cell line. Cytoplasmic actin is detected with Dylight® 554 Phalloidin(red). The nuclear counter stain is DAPI (blue).



Western blot analysis of lysates from Hela cell line, untreated or treated with TPA, 200nM, using Phospho-CREB(S133) Antibody(upper) or tubulin(lower).



Western blot analysis of lysates from Hela cell line, untreated or treated with 20% FBS + 100nM Calyculin A, using Phospho-CREB(S133) Antibody(upper) or tubulin(lower).



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

Citations

- Transgenic songbirds with suppressed or enhanced activity of CREB transcription factor.

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