

Anti-Phospho-CREB S133 CREB1 Antibody

Catalog Number: P00577

About CREB1

The CREB (Cyclic AMP-response-element-binding-protein 1) 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 (CRE element TGANNTCA), an octameric palindrome. Phosphorylation by cAMP-dependent protein kinase (PKA) at serine-119 is required for interaction with DNA and phosphorylation at serine-133 allows CREB to interact with CBP (CREB binding protein) leading to interaction with RNA polymerase II. Alternate splicing of this gene results in two transcript variants encoding different isoforms.

Overview

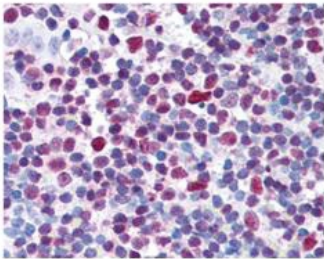
Product Name	Anti-Phospho-CREB S133 CREB1 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Phospho-CREB S133 CREB1 Antibody (Catalog # P00577). Tested in ELISA, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, WB
Clonality	Polyclonal 608
Formulation	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2, 0.01% (w/v) Sodium Azide
Storage Instructions	Store vial at -20°C prior to opening. Aliquot contents and freeze at -20°C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4°C as an undiluted liquid. Dilute only prior to immediate use. Expiration date is one (1) year from date of opening. (Ship on dry ice.)
Host	Rabbit
Uniprot ID	P16220

Technical Details

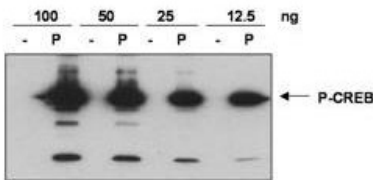
Immunogen	CREB phospho peptide corresponding to amino acid residues 122-147 of the human protein conjugated to Keyhole Limpet Hemocyanin (KLH).
Predicted Reactive Species	Primate
Isotype	IgG
Form	Liquid (sterile filtered)
Concentration	0.064 mg/mL by UV absorbance at 280 nm
Purification	Anti-CREB pS133 was affinity purified from monospecific antiserum by immunoaffinity purification.

	<p>Antiserum was first sequentially pre-adsorbed against a control E.coli lysate, nickel-purified recombinant CREB and the non-phosphorylated form of the immunizing peptide. The resultant depleted antiserum was then purified against the phosphorylated form of the immunizing peptide. This phospho specific polyclonal antibody is specific for phosphorylated pS133 of human CREB. Reactivity with non-phosphorylated CREB is minimal. This antibody does show cross-reactivity with pS133 phosphorylated CREB from mouse and rat.</p>
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>ELISA: 1:1,000 - 1:6,000</p> <p>IHC: 20 µg/ml</p> <p>WB: 1:500 - 1:2,000</p>

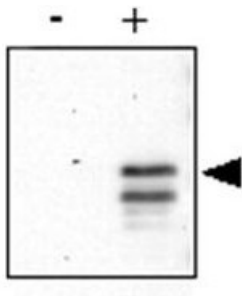
Anti-Phospho-CREB S133 CREB1 Antibody (P00577) Images



CREB was detected in paraffin-embedded sections of tonsillar lymphocytes tissue using rabbit anti-CREB pS133 Antigen Affinity purified polyclonal antibody (Catalog # P00577) at 20 ug/mL. Personal Communication, Tina Roush, LifeSpanBiosciences, Seattle, WA.



Western blot analysis of phosphorylated CREB expression using rabbit anti-CREB pS133 Antigen Affinity purified polyclonal antibody (Catalog # P00577) at 1:500. Recombinant His-tagged human CREB was produced in E.coli and purified by metal affinity chromatography. An aliquot of purified CREB was phosphorylated in-vitro using Protein Kinase A and ATP. Western blot of control (-) and in-vitro phosphorylated CREB (+) was used to show that the antibody reacts specifically with the phosphorylated form. Personal Communication, R. Screaton, The Salk Institute for Biological Studies.



Western blot analysis of phosphorylated CREB expression using rabbit anti-CREB pS133 Antigen Affinity purified polyclonal antibody (Catalog # P00577) at 1:500. Recombinant His-tagged human CREB was produced in E.coli and purified by metal affinity chromatography. An aliquot of purified CREB was phosphorylated in-vitro using Protein Kinase A and ATP. western blot of control (-) and in-vitro phosphorylated CREB (+) was used to show that the antibody reacts specifically with the phosphorylated form. Personal Communication, Boss, J., Emory University School of Medicine, Atlanta, GA.

2 Publications Citing This Product

1. PubMed ID: 10.1016/j.jep.2005.09.040, Traditional Chinese medicine Bao Gan Ning increase phosphorylation of CREB in liver fibrosis in vivo and in vitro
2. PubMed ID: 24289115, LncRNA DQ786243 affects Treg related CREB and Foxp3 expression in Crohn's disease

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