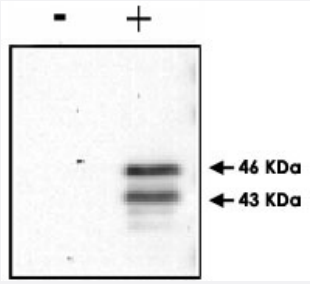
CREB1 (phospho S133) polyclonal antibody

Catalog # PAB9993 Size 100 uL

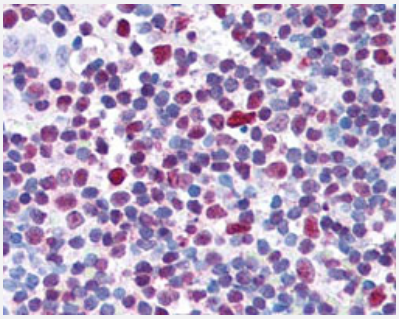
Applications

Western Blot (Recombinant protein)



CREB1 (phospho S133) polyclonal antibody (Cat # PAB9993) was used to detect phosphorylated CREB1 by immunoblot.
Recombinant His-tagged human CREB1 was produced in E. coli and purified by metal affinity chromatography.
An aliquot of purified CREB1 was phosphorylated in-vitro using Protein Kinase A and ATP.
Immunoblot of control (-) and in-vitro phosphorylated CREB1 (+) was used to show that the antibody reacts specifically with the phosphorylated form.
CREB1 polyclonal antibody (Cat # PAB9994) reacts equally with both non-phosphorylated and phosphorylated CREB1 (not shown).
Detection occurs using a 1 : 500 dilution of antibody followed by 1 : 5,000 dilution of HRP Goat-a-Rabbit IgG with visualization via ECL.
Film exposure was approximately 1'.
Personal Communication, Boss, J., Emory University School of Medicine, Atlanta, GA.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)



Immunohistochemical staining of CREB1 (phospho S133) polyclonal antibody (Cat # PAB9993) was used at 20 ug/mL to detect signal in a variety of tissues including multi-human, multi-brain and multi-cancer slides.
This image shows moderate to strong nuclear staining of tonsillar lymphocytes.
Tissue was formalin-fixed and paraffin embedded.
The image shows localization of the antibody as the precipitated red signal, with a hematoxylin purple nuclear counterstain.
Personal Communication, Tina Roush, Life Span Biosciences, Seattle, WA.

Specification

Product Description	Rabbit polyclonal antibody raised against synthetic phosphopeptide of CREB1.
Immunogen	Synthetic phosphopeptide (conjugated with KLH) corresponding to residues surrounding S133 of human CREB1.
Host	Rabbit
Reactivity	Human, Mouse, Rat
Specificity	This phospho specific polyclonal antibody is specific to phosphorylated pS133 of human CREB. Reactivity with non-phosphorylated CREB is minimal.
Form	Liquid
Quality Control Testing	Antibody Reactive Against Synthetic Peptide.
Recommend Usage	ELISA (1:1000-1:6000) Western Blot (1:500-1:2000) Immunohistochemistry (20 ug/mL) The optimal working dilution should be determined by the end user.
Storage Buffer	In 20 mM KH_2PO_4, 150 mM NaCl, pH 7.2 (0.01% sodium azide)
Storage Instruction	Store at 4°C. For long term storage store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

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  Personal Communication, Tina Roush, Life Span Biosciences, Seattle, WA.

- Enzyme-linked Immunoabsorbent Assay

Gene Info — CREB1

Entrez GeneID	1385
Gene Name	CREB1
Gene Alias	CREB, MGC9284
Gene Description	cAMP responsive element binding protein 1
Omim ID	123810
Gene Ontology	Hyperlink
Gene Summary	This gene encodes a transcription factor that is a member of the leucine zipper family of DNA bin ding 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 o f genes in response to hormonal stimulation of the cAMP pathway. Alternate splicing of this gene r esults in two transcript variants encoding different isoforms. [provided by RefSeq
Other Designations	active transcription factor CREB|cAMP-response element-binding protein-1|transactivator protein

Publication Reference

- Distinct cAMP response element-binding protein (CREB) domains stimulate different steps in a concerted mechanism of transcription activation.

  Kim J, Lu J, Quinn PG.

  PNAS 2000 Oct; 97(21):11292.

  Application: WB, Recombinant protein

- MSK1 is required for CREB phosphorylation in response to mitogens in mouse embryonic stem cells.

  Arthur JS, Cohen P.

  FEBS Letters 2000 Sep; 482(1-2):44.

  Application: WB, Mouse, Mouse embryonic stem cells

- CREB regulates MHC class II expression in a CIITA-dependent manner.

  Moreno CS, Beresford GW, Louis-Plence P, Morris AC, Boss JM.

  Immunity 1999 Feb; 10(2):143.

Pathway

- Antigen processing and presentation
- Melanogenesis
- Prostate cancer

Disease

- Alcoholism
- Alzheimer disease
- Anorexia Nervosa
- Arousal
- Asthma
- Avoidance Learning
- Bipolar Disorder
- Bulimia
- Cardiovascular Diseases
- Choice Behavior
- Cognition
- Depressive Disorder

- Diabetes Complications
- Diabetes Mellitus
- Disease Models
- Dominance
- Edema
- Genetic Predisposition to Disease
- Inflammation
- Lymphoma
- Memory
- Metabolic Syndrome X
- Mood Disorders
- Neoplasms
- Osteoporosis
- Pattern Recognition
- Personality Inventory
- Psychiatric Status Rating Scales
- Psychomotor Performance
- Schizophrenia
- Schizophrenic Psychology
- Sleep Disorders
- Weight Gain