

**Anti-CREB pS133 (RABBIT) Antibody**  
**CREB phospho S133 Antibody**  
**Catalog # ASR5183**

**Specification**

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**Anti-CREB pS133 (RABBIT) Antibody - Product Information**

Host	Rabbit
Conjugate	Unconjugated
Target Species	Human
Reactivity	Rat, Human, Mouse
Clonality	Polyclonal
Application	WB, IHC, E, I, LCI
Application Note	Anti-CREB pS133 antibody reacts with phosphorylated human CREB at pS133 and shows minimal reactivity by western blot with non-phosphorylated CREB and minimal reactivity (1%) by ELISA against the non-phosphorylated form of the immunizing peptide. This antibody was assayed against a variety of tissues including fibroblasts and B-cell lysates. Bands of 46 and 43 kDa corresponding to phosphorylated CREB are observed in western blots. Anti-CREB pS133 is suitable for the detection by immunoblot of phosphorylated human, mouse and rat CREB. No cross-reactivity occurs with non-phosphorylated CREB. For immunohistochemistry, formalin fixed, paraffin embedded human tissue shows moderate to strong nuclear staining in a variety of cells with minimal background staining. Although not tested this antibody is likely functional by FACS and immunoprecipitation.
Physical State	Liquid (sterile filtered)
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Immunogen	CREB phospho peptide corresponding to amino acid residues 122-147 of the human protein conjugated to Keyhole Limpet Hemocyanin (KLH).
Preservative	0.01% (w/v) Sodium Azide

**Anti-CREB pS133 (RABBIT) Antibody - Additional Information**

**Gene ID 1385**

**Other Names**  
1385

**Purity**

Anti-CREB pS133 was affinity purified from monospecific antiserum by immunoaffinity purification. 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.

**Storage Condition**

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.

**Precautions Note**

This product is for research use only and is not intended for therapeutic or diagnostic applications.

**Anti-CREB pS133 (RABBIT) Antibody - 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:<a href="http://www.uniprot.org/citations/14536081" target="\_blank">14536081</a>). 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).

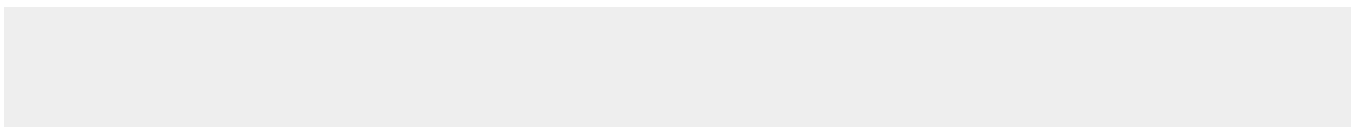
**Cellular Location**

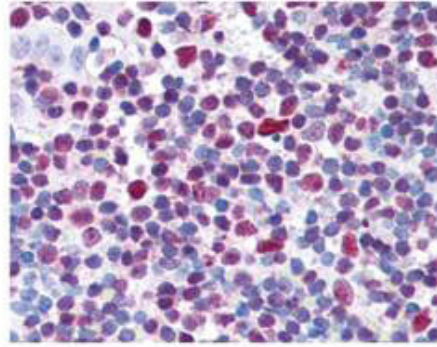
Nucleus {ECO:0000255|PROSITE-ProRule:PRU00312, ECO:0000255|PROSITE-ProRule:PRU00978, ECO:0000269|PubMed:12552083}

**Anti-CREB pS133 (RABBIT) Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Anti-CREB pS133 (RABBIT) Antibody - Images**



Rockland's affinity purified anti-CREB pS133 antibody was used at 20  $\mu\text{g/ml}$  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, LifeSpanBiosciences, Seattle, WA.

#### **Anti-CREB pS133 (RABBIT) Antibody - Background**

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.