abcam

ab278703

APC Anti-CREB (phospho S133) antibody [CREBS133-4D11]

Recombinant

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	APC
Excitation/Emission	Ex: 650nm, Em: 660nm
Storage buffer	Preservative: 0.09% Sodium azide Constituents: PBS, 0.2% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Synthetic Peptide within Human CREB1 pS133. The exact immunogen used to generate this antibody is proprietary information. Database link P16220
Clone number	CREBS133-4D11
Purification technique	Affinity purification Protein A/G
Light chain type	kappa

Reactivity data

Flow Cyt

Tested

Species	Human

Dilution info	5 µL for 10^6 Cells
Notes	-

Target data

See full target information CREB1 pS133

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).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Store in the dark

Notes

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	CAMP response element-binding protein better known as CREB functions as a transcription factor that regulates gene expression. CREB protein operates by binding to specific DNA sequences called cAMP response elements in the promoters of target genes leading to increased or altered transcription. The protein has a molecular weight around 43 kDa. Expressed broadly in many tissues CREB's activity is particularly high in the brain where it plays key roles in neuronal functions. Researchers also refer to phospho-CREB when discussing the activated form of this protein often analyzed through methods like CREB Western blot.
Biological function summary	CREB contributes significantly to cellular processes such as proliferation differentiation and survival through transcriptional regulation. CREB does not function alone; it frequently associates with other proteins forming complexes to exert its regulatory roles. Additionally CREB influences the development of memory and learning in neurons highlighting its extensive involvement in neurophysiological processes.
Pathways	CREB plays a substantial role in the cAMP signaling pathway as well as the mitogen-activated protein kinase (MAPK) pathway. Through its interaction with kinases and other signaling proteins CREB influences numerous downstream targets affecting cellular responses to external stimuli. Notably protein kinase A (PKA) activates CREB by phosphorylation facilitating its role in various signal transduction pathways and linking it to downstream transcriptional events.
Associated diseases and disorders	Research links CREB to neurological disorders and some forms of cancer. Aberrant CREB activity associates with neurodegenerative diseases like Alzheimer’s where dysregulated gene expression impacts neuronal viability and function. Furthermore in cancer CREB's role in cell proliferation and survival ties it to oncogenes such as BCL2 where abnormal CREB function can promote tumorigenesis. Understanding these connections provides valuable insights for therapeutic strategies against such diseases.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

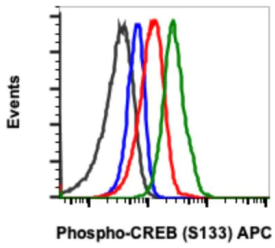
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

1 product image



Flow Cytometry - APC Anti-CREB (phospho S133) antibody [CREBS133-4D11] (ab278703)

CREB (phospho S133) Flow Cytometry staining using rabbit Anti-CREB (phospho S133) antibody

Flow cytometric analysis of SK-N-MC cells untreated (red) or treated with forskolin (green) using ab278703, or concentration-matched Rabbit (G9) mAb IgG Isotype Control (APC Conjugate) for cells untreated (black) or treated with forskolin (blue). Flow cytometric analysis of SK-N-MC cells secondary antibody only negative control (blue) or untreated (red) or treated with Forskolin (green) using ab278703.

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