abcam

Product datasheet

Anti-CREBBP antibody ab10490

3 Images

Overview

Product name	Anti-CREBBP antibody
Description	Rabbit polyclonal to CREBBP
Host species	Rabbit
Tested applications	**Suitable for:** IP, IHC-P, WB
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse, Chimpanzee, Rhesus monkey, Gorilla, Orangutan
Immunogen	Synthetic peptide corresponding to Human CREBBP aa 2392-2442. Database link: **Q92793** (Peptide available as **ab4916**)
Positive control	WB: HeLa whole cell lysate IHC-P: human prostate carcinoma tissue
General notes	Cyclic AMP-responsive enhancer binding protein (CREB) binding protein (CBP) and p300 are closely related transcriptional coactivators that have been shown to directly interact with many different DNA-binding transcription factors including nuclear hormone receptors, CREB (cyclic AMP-responsive enhancer binding protein), c-Fos, c-Jun/v-Jun, c-Myb/v-Myb, TFIIB and MyoD.Both CBP and p300 have been shown to display histone acetyltransferase (HAT) activity, capable of acetylating all four core histone particles in nucleosomes.As a result of HAT activity, it has been suggested CBP and p300 may play a direct role in activating chromatin for transcription.Single point mutations in CBP have been proposed as causative factors in the developmental abnormalities of Rubinstein-Taybi syndrome (RTS).Although both CBP and p300 appear to function similarly, the inability of p300 to rescue CBP malfunction iRTS suggests intrinsic functional differences between CBP and p300. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid

Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7 Preservative: 0.1% Sodium azide Constituents: 0.021% PBS, 1.764% Sodium citrate, 1.815% Tris
Purity	Immunogen affinity purified
Purification notes	Antibodies were affinity purified using the peptide immobilized on solid support.
Primary antibody notes	Cyclic AMP-responsive enhancer binding protein (CREB) binding protein (CBP) and p300 are closely related transcriptional coactivators that have been shown to directly interact with many different DNA-binding transcription factors including nuclear hormone receptors, CREB (cyclic AMP-responsive enhancer binding protein), c-Fos, c-Jun/v-Jun, c-Myb/v-Myb, TFIIB and MyoD.Both CBP and p300 have been shown to display histone acetyltransferase (HAT) activity, capable of acetylating all four core histone particles in nucleosomes.As a result of HAT activity, it has been suggested CBP and p300 may play a direct role in activating chromatin for transcription.Single point mutations in CBP have been proposed as causative factors in the developmental abnormalities of Rubinstein-Taybi syndrome (RTS).Although both CBP and p300 appear to function similarly, the inability of p300 to rescue CBP malfunction iRTS suggests intrinsic functional differences between CBP and p300.
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab10490 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

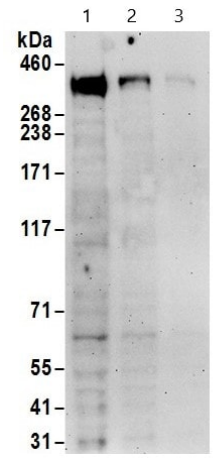
Application	Abreviews	Notes
IP		Use at 1-4 µg/mg of lysate.
IHC-P		1/200 - 1/1000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB		1/1000 - 1/25000. Predicted molecular weight: 265 kDa.

Target

Function	Acetylates histones, giving a specific tag for transcriptional activation. Also acetylates non-histone proteins, like NCOA3 coactivator. Binds specifically to phosphorylated CREB and enhances its transcriptional activity toward cAMP-responsive genes. Acts as a coactivator of ALX1 in the presence of EP300.
Involvement in disease	Note=Chromosomal aberrations involving CREBBP may be a cause of acute myeloid leukemias. Translocation t(8;16)(p11;p13) with MYST3/MOZ; translocation t(11;16)(q23;p13.3) with MLL/HRX; translocation t(10;16)(q22;p13) with MYST4/MORF. MYST3-CREBBP may induce leukemia by inhibiting RUNX1-mediated transcription. Defects in CREBBP are a cause of Rubinstein-Taybi syndrome type 1 (RSTS1) [MIM:180849]. RSTS1 is an autosomal dominant disorder characterized by craniofacial abnormalities, broad

	thumbs, broad big toes, mental retardation and a propensity for development of malignancies.
Sequence similarities	Contains 1 bromo domain. Contains 1 KIX domain. Contains 2 TAZ-type zinc fingers. Contains 1 ZZ-type zinc finger.
Domain	The KIX domain mediates binding to HIV-1 Tat.
Post-translational modifications	Methylation of the KIX domain by CARM1 blocks association with CREB. This results in the blockade of CREB signaling, and in activation of apoptotic response. Phosphorylated upon DNA damage, probably by ATM or ATR. Sumoylation negatively regulates transcriptional activity via the recruitment of DAAX.
Cellular localization	Cytoplasm. Nucleus. Recruited to nuclear bodies by SS18L1/CREST. In the presence of ALX1 relocalizes from the cytoplasm to the nucleus.

Images



Western blot - Anti-CREBBP antibody - ChIP Grade (ab10490)

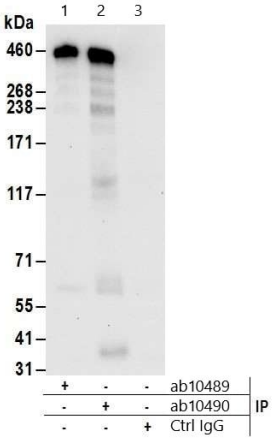
All lanes : Anti-CREBBP antibody (ab10490) at 0.4 µg/ml

Lane 1 : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 50 µg
Lane 2 : HeLa whole cell lysate at 15 µg
Lane 3 : HeLa whole cell lysate at 5 µg

Predicted band size: 265 kDa

Exposure time: 3 minutes

Detected by chemiluminescence.



Immunoprecipitation - Anti-CREBBP antibody - ChIP Grade (ab10490)

ab10490 immunoprecipitating CREBBP at 6 µg/ml lysate.

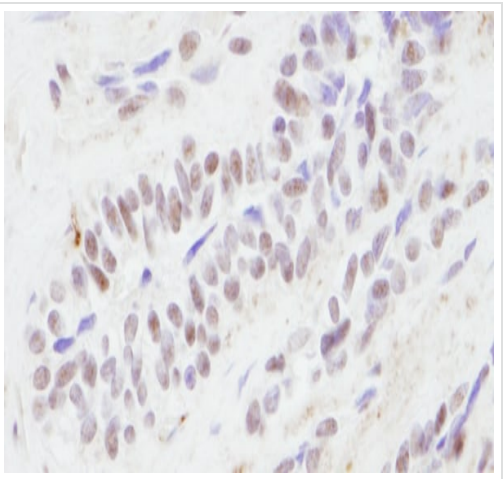
Lane 1: Anti-CREBBP antibody **ab10489** in HeLa whole cell extract (1 mg per IP reaction; 20% of IP loaded).

Lane 2: Anti-CREBBP antibody ab10490 in HeLa whole cell extract (1 mg per IP reaction; 20% of IP loaded).

Lane 3: IgG control.

For blotting immunoprecipitated CREBBP, ab10490 was used at 1 µg/mL.

Detection: Chemiluminescence with an exposure time of 30 seconds.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CREBBP antibody - ChIP Grade (ab10490)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human prostate carcinoma tissue labelling CREBBP with ab10490 at 1/500 (2µg/ml). Detection: DAB.

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