# abcam

# Product datasheet

# Anti-CREBBP antibody [CBP5I001] ab50702



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#### Overview

**Product name** Anti-CREBBP antibody [CBP5l001]

**Description** Mouse monoclonal [CBP5l001] to CREBBP

**Host species** Mouse

**Tested applications** Suitable for: IHC-P, WB, ICC/IF Species reactivity Reacts with: Mouse, Human

**Immunogen** Recombinant full length protein corresponding to Human CREBBP.

Positive control HeLa whole cell lysate (ab150035); NIH3T3 whole cell lysate. IHC-P: Human pancreas FFPE

tissue sections.

**General notes** 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 guestions, 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 or -

80°C. Avoid freeze / thaw cycle.

Storage buffer pH: 7.40

> Preservative: 0.05% Sodium azide Constituents: PBS, 1% BSA

**Purity** Protein G purified

**Purification notes** This antibody was purified using protein G column chromatography from culture supernatant of

hybridoma cultured in a medium containing bovine lgG depleted(approximately 95%) fetal bovine

serum, and filtered through a 0.22 µm membrane.

Clonality Monoclonal

Clone number CBP5l001

**Isotype** IgG1

#### **Applications**

#### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab50702 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
IHC-P	★★☆☆☆ (1)	Use a concentration of 10 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB		1/50 - 1/100. Predicted molecular weight: 265 kDa.
ICC/IF		1/5.

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**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

 $\label{lem:methylation} \mbox{Methylation of the KIX domain by CARM1 blocks association with CREB. This results in the} \\$ 

blockade of CREB signaling, and in activation of apoptotic response.

Phosphorylated upon DNA damage, probably by ATM or ATR.

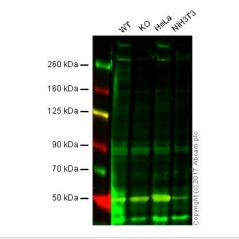
Sumoylation negatively regulates transcriptional activity via the recruitment of DAAX.

**Cellular localization** 

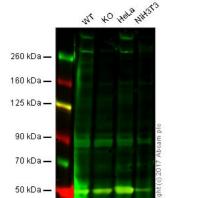
Cytoplasm. Nucleus. Recruited to nuclear bodies by SS18L1/CREST. In the presence of ALX1

relocalizes from the cytoplasm to the nucleus.

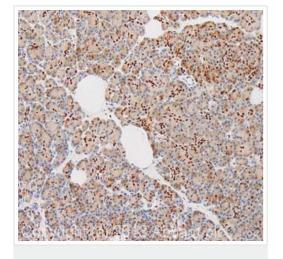
## **Images**



(ab50702)



Western blot - Anti-CREBBP antibody [CBP5I001]



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-CREBBP antibody [CBP5l001] (ab50702)

Lane 1: Wild-type HAP1 whole cell lysate (40 µg)

Lane 2: CREBBP knockout HAP1 whole cell lysate (40 µg)

Lane 3: HeLa whole cell lysate (40 µg)

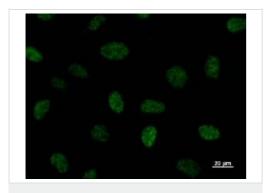
Lane 4: NIH3T3 whole cell lysate (40 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab50702 observed at 265 kDa. Red - loading control, ab176560, observed at 50 kDa.

ab50702 was shown to specifically recognize CREBBP in wild-type HAP1 cells along with additional cross-reactive bands. No band was observed when CREBBP knockout samples were examined. Wild-type and CREBBP knockout samples were subjected to SDS-PAGE. Ab50702 and ab176560 (Rabbit anti-alpha Tubulin loading control) were incubated overnight at 4°C at 1/100 dilution and 1/10,000 dilution respectively. Blots were developed with Goat anti-Mouse IgG H&L (IRDye® 800CW) preabsorbed ab216772 and Goat anti-Rabbit IgG H&L (IRDye® 680RD) preabsorbed ab216777 secondary antibodies at 1/10,000 dilution for 1 hour at room temperature before imaging.

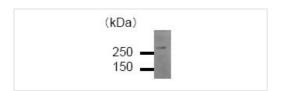
IHC image of CREBBP staining in human pancreas formalin fixed paraffin embedded tissue section, performed on a Leica Bond system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab50702, 10µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Immunocytochemistry/ Immunofluorescence - Anti-CREBBP antibody [CBP5l001] (ab50702)

Staining of HeLa cell lysate with ab50702 at a dilution of 1/5 and Goat anti-mouse secondary at 1/200.



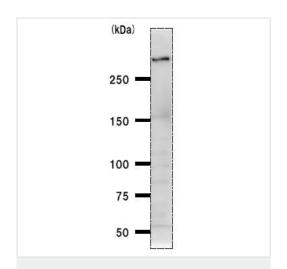
Western blot - Anti-CREBBP antibody [CBP5l001] (ab50702)

Anti-CREBBP antibody [CBP5l001] (ab50702) at 1/30 dilution + RIPA lysate of HeLa cells at 500  $\mu g$ 

# **Secondary**

Mouse IgG antibody at 1/2500 dilution

Predicted band size: 265 kDa



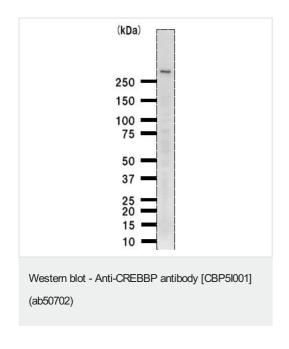
Western blot - Anti-CREBBP antibody [CBP5l001] (ab50702)

Anti-CREBBP antibody [CBP5l001] (ab50702) at 1/50 dilution + NIH3T3 whole cell lysate at 50  $\mu g$ 

## **Secondary**

Mouse IgG antibody at 1/2500 dilution

Predicted band size: 265 kDa



Anti-CREBBP antibody [CBP5l001] (ab50702) at 1/100 dilution + HeLa whole cell lysate at 50  $\mu g$ 

### Secondary

Mouse IgG antibody at 1/2500 dilution

Predicted band size: 265 kDa

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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