

# CBP Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP51115

## Product Information

Application	WB, ICC, IHC-P
Primary Accession	<a href="#">Q92793</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	265351

## Additional Information

Gene ID	1387
Other Names	CREB-binding protein, CREBBP, CBP
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human CBP. The exact sequence is proprietary.
Dilution	WB~~1:1000 ICC~~N/A IHC-P~~N/A
Format	0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%
Storage	Store at -20 °C.Stable for 12 months from date of receipt

## Protein Information

Name	CREBBP ( <a href="#">HGNC:2348</a> )
Synonyms	CBP
Function	Acetylates histones, giving a specific tag for transcriptional activation (PubMed: <a href="#">21131905</a> , PubMed: <a href="#">24616510</a> ). Mediates acetylation of histone H3 at 'Lys-18' and 'Lys-27' (H3K18ac and H3K27ac, respectively) (PubMed: <a href="#">21131905</a> ). Also acetylates non-histone proteins, like DDX21, FBL, IRF2, MAFG, NCOA3, POLR1E/PAF53 and FOXO1 (PubMed: <a href="#">10490106</a> , PubMed: <a href="#">11154691</a> , PubMed: <a href="#">12738767</a> , PubMed: <a href="#">12929931</a> , PubMed: <a href="#">24207024</a> , PubMed: <a href="#">28790157</a> , PubMed: <a href="#">30540930</a> , PubMed: <a href="#">35675826</a> , PubMed: <a href="#">9707565</a> ). Binds specifically to phosphorylated CREB and enhances its transcriptional activity toward cAMP-responsive genes. Acts as a coactivator of ALX1. Acts as a circadian transcriptional coactivator which enhances the activity of the circadian transcriptional activators: NPAS2-BMAL1 and CLOCK-BMAL1 heterodimers (PubMed: <a href="#">14645221</a> ). Acetylates PCNA; acetylation promotes removal of chromatin-bound PCNA and its degradation during nucleotide excision repair (NER)

(PubMed:[24939902](#)). Acetylates POLR1E/PAF53, leading to decreased association of RNA polymerase I with the rDNA promoter region and coding region (PubMed:[24207024](#)). Acetylates DDX21, thereby inhibiting DDX21 helicase activity (PubMed:[28790157](#)). Acetylates FBL, preventing methylation of 'Gln-105' of histone H2A (H2AQ104me) (PubMed:[30540930](#)). In addition to protein acetyltransferase, can use different acyl-CoA substrates, such as lactoyl-CoA, and is able to mediate protein lactylation (PubMed:[38128537](#)). Catalyzes lactylation of MRE11 in response to DNA damage, thereby promoting DNA double-strand breaks (DSBs) via homologous recombination (HR) (PubMed:[38128537](#)). Functions as a transcriptional coactivator for SMAD4 in the TGF-beta signaling pathway (PubMed:[25514493](#)).

#### Cellular Location

Cytoplasm. Nucleus. Note=Recruited to nuclear bodies by SS18L1/CREST (PubMed:15488321). In the presence of ALX1 relocates from the cytoplasm to the nucleus (PubMed:12929931). Relocalizes from the nucleus to the cytoplasm following UV cell damage (PubMed:15023334).

## Background

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Acetylates histones, giving a specific tag for transcriptional activation. Also acetylates non-histone proteins, like NCOA3 and FOXO1. 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.

## References

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- Sobulo O.M.,et al.Proc. Natl. Acad. Sci. U.S.A. 94:8732-8737(1997).  
Giles R.H.,et al.Genomics 42:96-114(1997).  
Petrij F.,et al.Submitted (MAR-1999) to the EMBL/GenBank/DDBJ databases.  
Nakajima D.,et al.Submitted (MAR-2005) to the EMBL/GenBank/DDBJ databases.  
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.

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