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CREBBP Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP1077a

Specification

CREBBP Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q92793

CREBBP Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 1387

Other Names
CREB-binding protein, CREBBP, CBP

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP1077a was selected from the N-term region of human CREBBP. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CREBBP Antibody (N-term) Blocking Peptide - Protein Information

Name CREBBP (HGNC:2348)

Synonyms CBP

Function
Acetylates histones, giving a specific tag for transcriptional activation (PubMed:21131905, PubMed:24616510). Mediates acetylation of histone H3 at 'Lys-18' and 'Lys-27' (H3K18ac and H3K27ac, respectively) (PubMed:21131905). Also acetylates non-histone proteins, like DDX21, FBL, IRF2, MAFG, NCOA3, POLR1E/PAF53 and FOXO1 (PubMed:10490106, PubMed:11154691, PubMed:12738767, PubMed:<a href="http://www.uniprot.org/citations/12929931"

target="_blank">12929931, PubMed:9707565, PubMed:24207024, PubMed:28790157, PubMed:30540930, PubMed:35675826). 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:14645221). 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). 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 relocalizes from the cytoplasm to the nucleus (PubMed:12929931)

CREBBP Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

CREBBP Antibody (N-term) Blocking Peptide - Images

CREBBP Antibody (N-term) Blocking Peptide - Background

CREBBP is an acetyltransferase enzyme that acetylates histones, giving a specific tag for transcriptional activation. It also acetylates non-histone proteins, like NCOA3 coactivator. This protein mediates cAMP-gene regulation by binding specifically to phosphorylated CREB protein. CBP, as coactivator, augments the activity of phosphorylated CREB to activate transcription of cAMP-responsive genes. Chromosomal aberrations involving CREBBP may be a cause of acute myeloid leukemias. For example, MYST3-CREBBP may induce leukemia by inhibiting RUNX1-mediated transcription. Defects in CREBBP are also the cause of Rubinstein-Taybi syndrome (RSTS). RSTS is an autosomal dominant disorder characterized by craniofacial abnormalities, broad thumbs, broad big toes, mental retardation and a propensity for development of malignancies.

CREBBP Antibody (N-term) Blocking Peptide - References

Cui, Q., et al., Oncogene 24(24):3864-3874 (2005).Gray, M.J., et al., Oncogene 24(19):3110-3120 (2005).Mayr, B.M., et al., J. Biol. Chem. 280(15):15103-15110 (2005).Roelfsema, J.H., et al., Am. J. Hum. Genet. 76(4):572-580 (2005).Furumatsu, T., et al., J. Biol. Chem. 280(9):8343-8350 (2005).