CREB-Bp ELISA Kit for Human, Mouse

PRODUCT OVERVIEW

Product Name	CREB-BP, ELISA Kit
Full Product Name	CREB-BP Colorimetric Cell-Based ELISA Kit
Product Gene Name	CREB-BP elisa kit
Product Synonym Gene Name	CREBBP
Product Synonym Names	CREB-binding protein; CREBBP; CBP
Species Reactivity	Human, Mouse
Assay Type	Non-Phospho Cell-Based ELISA
Samples	Researchers plate their cell line of choice
Sensitivity	>=5000 cells/well
Form/Format	One 96-Well Plate
Preparation and Storage	Store at 4 degree C.
Molecular Weight	265351
OMIM	U85962 mRNA
3D Structure	ModBase 3D Structure for Q92793
Detection Method	Colorimetric 450 nm
Product Categories/Family for CREB-BP elisa kit	Cell Based ELISA Kit
Related Product Information for CREB-BP elisa kit	MBS9500148 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the CREB-BP, ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing CREB-BP. The ELISA analytical biochemical technique of the MBS9500148 kit is based on CREB-BP antibody-CREB-BP antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CREB-BP antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CREB-BP. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).
Other Notes	Small volumes of CREB-BP elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CREB-BP. It may not necessarily be applicable to this product.

NCBI GI #	119943102
NCBI GeneID	1387
NCBI Accession #	NP_001073315.1
UniProt Primary Accession #	Q92793
UniProt Secondary Accession #	O00147; Q16376; Q4LE28; D3DUC9

UniProt Related Accession #	Q92793
GenBank Nucleotide #	NM_001079846.1
NCBI Official Full Name	CREB-binding protein isoform b
NCBI Official Synonym Full Names	CREB binding protein
NCBI Official Symbol	CREBBP
NCBI Official Synonym Symbols	CBP; RSTS; KAT3A; RSTS1
UniProt Protein Name	CREB-binding protein
UniProt Gene Name	CREBBP
UniProt Synonym Gene Names	CBP
NCBI Protein Information	CREB-binding protein
NCBI Summary for CREB-BP	This gene is ubiquitously expressed and is involved in the transcriptional coactivation of many different transcription factors. First isolated as a nuclear protein that binds to cAMP-response element binding protein (CREB), this gene is now known to play critical roles in embryonic development, growth control, and homeostasis by coupling chromatin remodeling to transcription factor recognition. The protein encoded by this gene has intrinsic histone acetyltransferase activity and also acts as a scaffold to stabilize additional protein interactions with the transcription complex. This protein acetylates both histone and non-histone proteins. This protein shares regions of very high sequence similarity with protein p300 in its bromodomain, cysteine-histidine-rich regions, and histone acetyltransferase domain. Mutations in this gene cause Rubinstein-Taybi syndrome (RTS). Chromosomal translocations involving this gene have been associated with acute myeloid leukemia. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Feb 2009]

UniProt Comments for CREB-BP	CBP: a protein acetyltransferase that can transcriptionally activate histones. Acetylates the NCOA3 coactivator. Binds specifically to phosphorylated CREB1 and enhances its transcriptional activity toward cAMP-responsive genes. Methylation of the KIX domain by CARM1 blocks association with CREB, blocking CREB signaling, and activating the apoptotic response. Found in a complex containing NCOA2, NCOA3, IKKA, IKKB, and IKBKG. Probably part of a complex with HIF1A and EP300. Interacts with the C-terminal region of CITED4. The TAZ-type 1 domain interacts with HIF1A. Interacts with MAF, SRCAP, CARM1, ELF3, MLLT7/FOXO4, N4BP2, NCOA1, NCOA3, NCOA6, PCAF, PELP1, PML, SMAD1, SMAD2, SMAD3, SPIB and TRERF1. Interacts with HTLV-1 Tax, p30II, and HIV-1 Tat. Interacts with KLF1; the interaction results in acetylation of KLF1 and enhancement of its transcriptional activity. Interacts with ZCCHC12. Interacts with DAXX; the interaction is dependent on CBP sumoylation and results in suppression of the transcriptional activiy via recruitment of HDAC2 to DAAX. Interacts with MTDH. Interacts with NFATC4. Interacts with MAFG; the interaction acetylates MAFG in the basic region and stimulates NFE2 transcriptional activity through increasing its DNA-binding activity. Interacts with IRF2; the interaction acetylates IRF2 and regulates its activity on the H4 promoter. Interacts via its N-terminus with the C-terminus of SS18L1. Interacts with MECOM. Chromosomal aberrations involving CBP may be a cause of acute myeloid leukemias. Known translocation partners include MYST3, MLL, and MYST4. MYST3-CBP fusion proteins may induce leukemia by inhibiting RUNX1-mediated transcription. Defects in CBP are a cause of Rubinstein-Taybi syndrome type 1 (RSTS1), an autosomal dominant disorder characterized by craniofacial abnormalities, broad thumbs, broad big toes, mental retardation and a propensity for development of malignancies. Protein type: Acetyltransferase; DNA-binding; EC 2.3.1.48; Motility/polarity/chemotaxis; Nuclear receptor co-regulator; Transcription, coactivator/corepressor Chromosomal Location of Human Ortholog: 16p13.3 Cellular Component: cytoplasm; histone acetyltransferase complex; nuclear body; nuclear chromatin; nucleoplasm; nucleus Molecular Function: acetyltransferase activity; chromatin binding; damaged DNA binding; DNA binding transcription factor activity; histone acetyltransferase activity; MRF binding; p53 binding; peptide N-acetyltransferase activity; protein binding; signal transducer activity; transcription coactivator activity; transcription factor binding; zinc ion binding Biological Process: beta-catenin-TCF complex assembly; cellular response to UV; embryonic digit morphogenesis; histone acetylation; homeostatic process; N-terminal peptidyl-lysine acetylation; negative regulation of transcription from RNA polymerase II promoter; Notch signaling pathway; positive regulation of interferon type I production; positive regulation of transcription from RNA polymerase II promoter; positive regulation of transcription, DNA-templated; protein amino acid acetylation; protein complex assembly; protein destabilization; regulation of apoptosis; regulation of cellular response to heat; regulation of lipid metabolic process; regulation of myeloid cell differentiation; regulation of smoothened signaling pathway; regulation of transcription, DNA-templated; response to hypoxia; rhythmic process; signal transduction; stimulatory C-type lectin receptor signaling pathway; transcription initiation from RNA polymerase II promoter; viral process Disease: Rubinstein-taybi Syndrome 1
Research Articles on CREB-BP	**1.** Ectopic expression of EP300-ZNF384 and CREBBP-ZNF384 fusion altered differentiation of mouse hematopoietic stem and progenitor cells and also potentiated oncogenic transformation in vitro.our results indicate that gene fusion is a common class of genomic abnormalities in childhood ALL and that recurrent translocations involving EP300 and CREBBP may cause epigenetic deregulation with potential for therapeutic targeting.
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