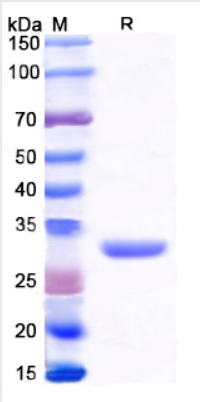
EP300 Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	EP300, Recombinant Protein
Full Product Name	Recombinant Human EP300 Protein, N-His
Product Gene Name	EP300 recombinant protein
Product Synonym Names	Histone crotonyltransferase p300; Protein lactyltransferas p300; Protein propionyltransferase p300; Histone acetyltransferase p300; Protein 2-hydroxyisobutyryltransferase p300; EP300; p300 HAT; Histone butyryltransferase p300; P300; E1A-associated protein p300
Sequence	Glu1351-Il e1601
Host	E coli
Form/Format	Lyophilized from a solution in PBS pH 7.4, 0.02% NLS, 1mM EDTA, 4% Trehalose, 1% Mannitol.
Purity/Purification	>90% as determined by SDS-PAGE.
Preparation and Storage	Use a manual defrost freezer and avoid repeated freeze thaw cycles. Store at 2 to 8 degree C for frequent use. Store at -20 to -80 degree C for twelve months from the date of receipt.
Molecular Weight	264,161 Da
Chromosome Location	Chromosome: 22; NC_000022.10 (41488614..41576081). Location: 22q13.2
OMIM	602700
3D Structure	ModBase 3D Structure for Q09472
Species	Homo sapiens (Human)
Reconstitution	Reconstitute in sterile water for a stock solution.
Product Categories/Family for EP300 recombinant protein	Recombinant Protein; Other Proteins; Proteins
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for EP300 recombinant protein	ELISA (EIA), Immunogen, SDS-PAGE, Western Blot (WB), Bioactivity testing in progress
Related Product Information for EP300 recombinant protein	MBS1587540 is a recombinant protein targeting EP300. Also known as Recombinant Human EP300 Protein, N-His. Host: E coli.
Other Notes	Small volumes of EP300 recombinant protein 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.



SDS-Page of EP300 recombinant protein
SDS-PAGE for Recombinant Human EP300 protein

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for EP300. It may not necessarily be applicable to this product.

NCBI GI #	50345997
NCBI GeneID	2033
NCBI Accession #	NP_001420.2
UniProt Primary Accession #	Q09472
UniProt Secondary Accession #	B1AKC2
UniProt Related Accession #	Q09472
GenBank Nucleotide #	NM_001429.3
NCBI Official Full Name	histone acetyltransferase p300
NCBI Official Synonym Full Names	E1A binding protein p300
NCBI Official Symbol	EP300
NCBI Official Synonym Symbols	p300; KAT3B; RSTS2
UniProt Protein Name	Histone acetyltransferase p300
UniProt Synonym Protein Names	E1A-associated protein p300
Protein Family	Histone acetyltransferase
UniProt Gene Name	EP300
UniProt Synonym Gene Names	P300; p300 HAT
UniProt Entry Name	EP300_HUMAN
NCBI Protein Information	histone acetyltransferase p300; p300 HAT; E1A-binding protein, 300kD; E1A-associated protein p300
NCBI Summary for EP300	This gene encodes the adenovirus E1A-associated cellular p300 transcriptional co-activator protein. It functions as histone acetyltransferase that regulates transcription via chromatin remodeling and is important in the processes of cell proliferation and differentiation. It mediates cAMP-gene regulation by binding specifically to phosphorylated CREB protein. This gene has also been identified as a co-activator of HIF1A (hypoxia-inducible factor 1 alpha), and thus plays a role in the stimulation of hypoxia-induced genes such as VEGF. Defects in this gene are a cause of Rubinstein-Taybi syndrome and may also play a role in epithelial cancer. [provided by RefSeq, Jul 2008]

UniProt Comments for EP300	p300: a histone acetyltransferase and transcriptional co-activator that regulates transcription via chromatin remodeling. Acetylates all four core histones in nucleosomes. Related to CPB (CREB-binding protein), and like CPB can stimulate transcription through activation of CREB. Specifically inhibited by the adenovirus oncoprotein E1A. A co-activator of HIF1A (hypoxia-inducible factor 1 alpha), and thus plays a role in the stimulation of hypoxia-induced genes such as VEGF. Mediates cAMP-gene regulation by binding specifically to phosphorylated CREB protein. Methylated at R580 and R604 in the KIX domain by CARM1, which blocks association with CREB, inhibits CREB signaling and activates the apoptotic response. Also methylated at R2142 by CARM1, which impairs interaction with NCoA2. Protein type: Nuclear receptor co-regulator; EC 2.3.1.48; Acetyltransferase; Motility/polarity/chemotaxis; Transcription, coactivator/corepressor Chromosomal Location of Human Ortholog: 22q13.2 Cellular Component: nucleoplasm; transcription factor complex; cytoplasm; nucleus; histone acetyltransferase complex Molecular Function: lysine N-acetyltransferase activity; transcription activator binding; zinc ion binding; p53 binding; chromatin DNA binding; transcription coactivator activity; beta-catenin binding; transcription factor binding; protein binding; histone acetyltransferase activity; DNA binding; androgen receptor binding; acetyltransferase activity; transferase activity, transferring acyl groups; chromatin binding; nuclear hormone receptor binding Biological Process: circadian rhythm; establishment and/or maintenance of chromatin architecture; positive regulation of protein binding; viral reproduction; regulation of cell cycle; apoptosis; heart development; positive regulation of transcription of target genes involved in unfolded protein response; negative regulation of transcription from RNA polymerase II promoter; regulation of transcription, DNA-dependent; positive regulation of interferon type I production; G2/M transition of mitotic cell cycle; DNA damage response, signal transduction by p53 class mediator resulting in induction of apoptosis; nervous system development; Notch signaling pathway; skeletal muscle development; somitogenesis; internal peptidyl-lysine acetylation; transcription, DNA-dependent; protein stabilization; organ morphogenesis; protein amino acid acetylation; response to estrogen stimulus; response to hypoxia; innate immune response; positive regulation of transcription from RNA polymerase II promoter; positive regulation of transcription factor activity; mitotic cell cycle; internal protein amino acid acetylation; lung development; N-terminal peptidyl-lysine acetylation Disease: Rubinstein-taybi Syndrome 2; Rubinstein-taybi Syndrome 1; Colorectal Cancer
Research Articles on EP300	**1.** cAMP signalling decreases the level of the p300 protein by promoting its ubiquitin-proteasome dependent degradation, which is mediated by Epac and p38 MAPK
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