

Active Recombinant Human EP300, His-tagged

Cat. No. EP300-442H Lot. No. (See product label)

SPECIFICATION

Product Overview Human p300 is fused to a His-tag.

Species Human

Source Sf21 Cells

Description

p300 functions as histone acetyltransferase and regulates transcription via chromatin remodeling. It acetylates all four core histones in nucleosomes, while the histone acetylation gives an epigenetic tag for transcriptional activation. p300 mediates cAMP-gene regulation by binding specifically to phosphorylated CREB protein. It functions as a acetyltransferase for nonhistone targets. It acetylates Lys-131 of ALX1 and acts as its coactivator in the presence of CREBBP. p300 acetylates sirtuin 2 (SIRT2) and is proposed to indirectly increase the transcriptional activity of TP53 through acetylation and subsequent attenuation of SIRT2 deacetylase function. It acetylates HDAC1 leading to its inactivation and modulation of transcription. It promotes cardiac myocyte enlargement and binds to and may be involved in the transforming capacity of the adenovirus E1A protein. In case of HIV-1 infection, it is recruited by the viral protein Tat. p300 regulates Tatts transactivating activity and may help inducing chromatin remodeling of proviral genes. It acetylates FOXO1 and enhances its transcriptional activity.

Form

Liquid. In 50mM TRIS-HCl, pH 7.5, containing 100mM sodium chloride, 0.2% NP-40, 50mM imidazole and 10% glycerol.

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Bio-activity	100 ng required for acetylation assay.
Purity	≥95% (SDS-PAGE)
Stability	Stable for at least 6 months after receipt when stored at -80°C.
Storage	Short Term Storage: -20°C; Long Term Storage: -80°C. After opening, prepare aliquots and store at -80°C. Avoid freeze/thaw cycles.
Concentration	Lot dependent (0.2-1.5mg/ml)

GENE INFORMATION

Gene Name	EP300 E1A binding protein p300 [Homo sapiens]
Official Symbol	EP300
Synonyms	EP300; E1A binding protein p300; histone acetyltransferase p300; KAT3B; p300; p300 HAT; E1A-binding protein, 300kD; E1A-associated protein p300; RSTS2;
Gene ID	2033
mRNA Refseq	NM_001429
Protein Refseq	NP_001420
MIM	602700
UniProt ID	Q09472
Chromosome Location	22q13.2

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Pathway


ATF-2 transcription factor network, organism-specific biosystem; Adherens junction, organism-specific biosystem; Adherens junction, conserved biosystem; Androgen Receptor Signaling Pathway, organism-specific biosystem; BMAL1:CLOCK/NPAS2 Activates Circadian Expression, organism-specific biosystem; C-MYB transcription factor network, organism-specific biosystem; Cell cycle, organism-specific biosystem;

Function

DNA binding; NF-kappaB binding; RNA polymerase II activating transcription factor binding; RNA polymerase II core promoter proximal region sequence-specific DNA binding; acetyltransferase activity; activating transcription factor binding; androgen receptor binding; antigen binding; beta-catenin binding; chromatin DNA binding; chromatin binding; core promoter binding; glucocorticoid receptor binding; histone acetyltransferase activity; lysine N-acetyltransferase activity; metal ion binding; mitogen-activated protein kinase binding; peroxisome proliferator activated receptor binding; protein binding; protein complex binding; transcription coactivator activity; contributes_to transcription coactivator activity; transcription factor binding; transferase activity, transferring acyl groups; zinc ion binding;

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