

Rabbit anti-Human Phospho-EP300 (S1834) Polyclonal Antibody | anti-EP300 antibody

Phospho-EP300 (S1834) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA289748	Rabbit	Human	ELISA, Dot Blot

PRODUCT SYNONYMS

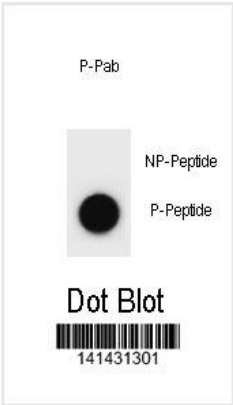
Phospho-EP300 (S1834); Polyclonal Antibody; Phospho-EP300 (S1834) Antibody; Histone acetyltransferase p300; p300 HAT; E1A-associated protein p300; EP300; P300; anti-EP300 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	Rabbit Ig
Specificity	This EP300 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S1834 of human EP300.
Purity/Purification	Peptide Affinity Purified Rabbit Polyclonal Antibody (Pab)
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Sequence Length	2414
Applicable Applications for anti-EP300 antibody	ELISA, DB (Dot Blot)

Function	Functions as histone acetyltransferase and regulates transcription via chromatin remodeling. Acetylates all four core histones in nucleosomes. Histone acetylation gives an epigenetic tag for transcriptional activation. Mediates cAMP-gene regulation by binding specifically to phosphorylated CREB protein. Mediates acetylation of histone H3 at 'Lys-122' (H3K122ac), a modification that localizes at the surface of the histone octamer and stimulates transcription, possibly by promoting nucleosome instability. Mediates acetylation of histone H3 at 'Lys-27' (H3K27ac). Also functions as acetyltransferase for non-histone targets, such as ALX1, HDAC1, PRMT1 or SIRT2. Acetylates 'Lys-131' of ALX1 and acts as its coactivator. Acetylates SIRT2 and is proposed to indirectly increase the transcriptional activity of TP53 through acetylation and subsequent attenuation of SIRT2 deacetylase function. Acetylates HDAC1 leading to its inactivation and modulation of transcription. Acts as a TFAP2A-mediated transcriptional coactivator in presence of CITED2. Plays a role as a coactivator of NEUROD1- dependent transcription of the secretin and p21 genes and controls terminal differentiation of cells in the intestinal epithelium. Promotes cardiac myocyte enlargement. Can also mediate transcriptional repression. Acetylates FOXO1 and enhances its transcriptional activity. Acetylates BCL6 which disrupts its ability to recruit histone deacetylases and hinders its transcriptional repressor activity. Participates in CLOCK or NPAS2-regulated rhythmic gene transcription; exhibits a circadian association with CLOCK or NPAS2, correlating with increase in PER1/2 mRNA and histone H3 acetylation on the PER1/2 promoter. Acetylates MTA1 at 'Lys-626' which is essential for its transcriptional coactivator activity. Acetylates XBP1 isoform 2; acetylation increases protein stability of XBP1 isoform 2 and enhances its transcriptional activity. Acetylates PCNA; acetylation promotes removal of chromatin-bound PCNA and its degradation during nucleotide excision repair (NER). Acetylates MEF2D. Acetylates and stabilizes ZBTB7B protein by antagonizing ubiquitin conjugation and degradation, this mechanism may be involved in CD4/CD8 lineage differentiation. In addition to protein acetyltransferase, can use different acyl-CoA substrates, such as (2E)-butenoyl-CoA (crotonyl-CoA), butanoyl-CoA (butyryl-CoA) or propanoyl-CoA (propionyl-CoA), and is able to mediate protein crotonylation, butyrylation or propionylation, respectively. Acts as a histone crotonyltransferase; crotonylation marks active promoters and enhancers and confers resistance to transcriptional repressors. Histone crotonyltransferase activity is dependent on the concentration of (2E)-butenoyl-CoA (crotonyl-CoA) substrate and such activity is weak when (E)-but-2-enoyl-CoA (crotonyl-CoA) concentration is low. Also acts as a histone butyryltransferase; butyrylation marks active promoters (). Functions as a transcriptional coactivator for SMAD4 in the TGF-beta signaling pathway. Acetylates PCK1 and promotes PCK1 anaplerotic activity.
Cellular Location	Cytoplasm. Nucleus. Chromosome Note=Localizes to active chromatin: Colocalizes with histone H3 acetylated and/or crotonylated at 'Lys-18' (H3K18ac and H3K18cr, respectively). In the presence of ALX1 relocates from the cytoplasm to the nucleus. Colocalizes with ROCK2 in the nucleus.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 2 weeks. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.

IMAGES



DB (Dot Blot)
 Dot blot analysis of EP300 Antibody (Phospho S1834) Phospho-specific Pab (AAA289748) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.6ug per ml.

ADDITIONAL INFORMATION

Related Product Information for anti-EP300 antibody	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.
Product Categories/Family for anti-EP300 antibody	Cancer; Neuroscience; Phospho Antibodies
References	Zhang, M., et al. J. Immunol. 185(7):3960-3969(2010) Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010) Vempati, R.K., et al. J. Biol. Chem. 285(37):28553-28564(2010) Reynoird, N., et al. EMBO J. 29(17):2943-2952(2010) Jang, E.R., et al. Biochem. Biophys. Res. Commun. 397(4):637-643(2010)

NCBI AND UNIPROT INFORMATION

NCBI GI #	50345997
NCBI GeneID	2033
NCBI Accession #	NP_001420.2
NCBI GenBank Nucleotide #	NM_001429.3
UniProt Accession #	Q09472; B1AKC2
Molecular Weight	264161
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
NCBI Protein Information	histone acetyltransferase p300
UniProt Protein Name	Histone acetyltransferase p300
UniProt Gene Name	EP300
UniProt Synonym Gene Names	P300; p300 HAT
UniProt Entry Name	EP300_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/phospho-ep300-s1834-antibody-dot-blot-elisa/289748>