

Rabbit anti-Human, Mouse p300 Polyclonal Antibody | anti-EP300 antibody

p300 Antibody

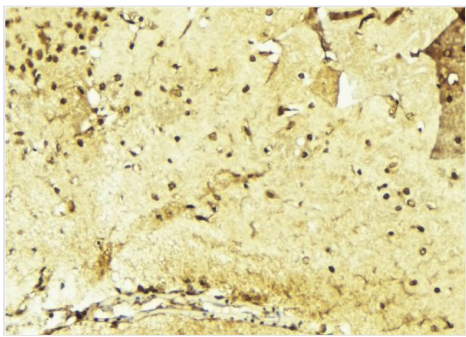
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA322011	Rabbit	Human, Mouse	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

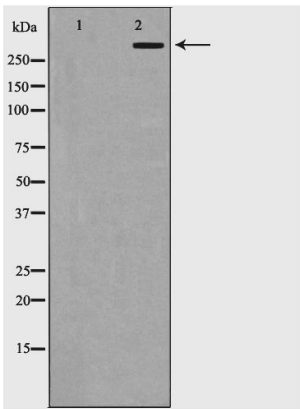
p300; Polyclonal Antibody; p300 Antibody; E1A associated protein p300; E1A binding protein p300; E1A-associated protein p300; EP300; EP300: E1A binding protein p300; EP300_HUMAN; Histone acetyltransferase p300; KAT3B; p300 HAT; RSTS2; anti-EP300 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse
Clonality	Polyclonal
Isotype	IgG
Specificity	p300 antibody detects endogenous levels of total p300
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	2414
Applicable Applications for anti-EP300 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human p300
Subcellular Location	Cytoplasm. Nucleus. In the presence of ALX1 relocalizes from the cytoplasm to the nucleus. Colocalizes with ROCK2 in the nucleus.
Predicted Cross Reactivity	Bovine, Horse, Sheep, Rabbit, Chicken, Xenopus
Similarity	Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Chicken (100%), Xenopus (82%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IHC (Immunohiostchemistry)
AAA322011 at 1/100 staining Mouse brain tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis of p300 expression in HepG2 cells. The lane on the left is treated with the antigen-specific peptide.

Related Product Information for anti-EP300 antibody

Function: Functions as histone acetyltransferase and regulates transcription via chromatin remodeling (PubMed:23415232, PubMed:23934153, PubMed:8945521). Acetylates all four core histones in nucleosomes. Histone acetylation gives an epigenetic tag for transcriptional activation (PubMed:23415232, PubMed:23934153, PubMed:8945521). 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) (PubMed:23911289). Also functions as acetyltransferase for nonhistone targets. Acetylates 'Lys-131' of ALX1 and acts as its coactivator (PubMed:12929931). Acetylates SIRT2 and is proposed to indirectly increase the transcriptional activity of TP53 through acetylation and subsequent attenuation of SIRT2 deacetylase function (PubMed:18722353). Acetylates HDAC1 leading to its inactivation and modulation of transcription (PubMed:16762839). Acts as a TFAP2A-mediated transcriptional coactivator in presence of CITED2 (PubMed:12586840). 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 (PubMed:15890677). Acetylates BCL6 which disrupts its ability to recruit histone deacetylases and hinders its transcriptional repressor activity (PubMed:12402037). 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 (PubMed:14645221). Acetylates MTA1 at 'Lys-626' which is essential for its transcriptional coactivator activity (PubMed:16617102). Acetylates XBP1 isoform 2; acetylation increases protein stability of XBP1 isoform 2 and enhances its transcriptional activity (PubMed:20955178). Acetylates PCNA; acetylation promotes removal of chromatin-bound PCNA and its degradation during nucleotide excision repair (NER) (PubMed:24939902). Acetylates MEF2D (PubMed:21030595). Acetylates and stabilizes ZBTB7B protein by antagonizing ubiquitin conjugation and degradation, this mechanism may be involved in CD4/CD8 lineage differentiation (PubMed:20810990). 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 (PubMed:25818647, PubMed:17267393). Acts as a histone crotonyltransferase; crotonylation marks active promoters and enhancers and confers resistance to transcriptional repressors (PubMed:25818647). 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 (PubMed:25818647). Also acts as a histone butyryltransferase; butyrylation marks active promoters (PubMed:17267393).

Subunit Structure: Interacts with phosphorylated CREB1. Interacts with HIF1A; the interaction is stimulated in response to hypoxia and inhibited by CITED2. Interacts (via N-terminus) with TFAP2A (via N-terminus); the interaction requires CITED2. Interacts (via CH1 domain) with CITED2 (via C-terminus). Interacts with CITED1 (unphosphorylated form preferentially and via C-terminus). Interacts with ESR1; the interaction is estrogen-dependent and enhanced by CITED1. Interacts with DTX1, EID1, ELF3, FEN1, LEF1, NCOA1, NCOA6, NR3C1, PCAF, PELP1, PRDM6, SP1, SP3, SPIB, SRY, TCFL2, TP53, DDX5, DDX17, SATB1, SRCAP, TTC5, JMY and TRERF1. The TAZ-type 1 domain interacts with HIF1A. Probably part of a complex with HIF1A and CREBBP. Part of a complex containing CARM1 and NCOA2/GRIP1. Interacts with ING4 and this interaction may be indirect. Interacts with ING5. Interacts with the C-terminal region of CITED4. Non-sumoylated EP300 preferentially interacts with SENP3. Interacts with SS18L1/CREST. Interacts with ALX1 (via homeobox domain). Interacts with NEUROD1; the interaction is inhibited by NR0B2. Interacts with TCF3. Interacts (via CREB-binding domain) with MYOCD (via C-terminus). Binds to HIPK2. Interacts with ROCK2 and PPARG. Forms a complex made of CDK9, CCNT1/cyclin-T1, EP300 and GATA4 that stimulates hypertrophy in cardiomyocytes. Interacts with IRF1 and this interaction enhances acetylation of p53/TP53 and stimulation of its activity. Interacts with FOXO1; the interaction acetylates FOXO1 and enhances its transcriptional activity. Interacts with ALKBH4 and DDIT3/CHOP. Interacts with KLF15. Interacts with CEBPB and RORA. Interacts with HTLV-1 Tax and p30II. Interacts with and acetylates HIV-1 Tat. Interacts with NPAS2, ARNTL/BMAL1 and CLOCK. Interacts with SIRT2 isoform 1, isoform 2 and isoform 5. Interacts with MTA1. Interacts with HDAC4 and HDAC5 in the presence of TFAP2C (PubMed:10545121, PubMed:10722728, PubMed:10823961, PubMed:11073989, PubMed:11073990, PubMed:11080476, PubMed:11349124, PubMed:11430825, PubMed:11463834, PubMed:11481323, PubMed:11518699, PubMed:11559821, PubMed:11564735, PubMed:11581164, PubMed:11581372, PubMed:11701890, PubMed:11744733, PubMed:11864910, PubMed:11959990, PubMed:11997499, PubMed:12446687, PubMed:12527917, PubMed:12586840, PubMed:12750254, PubMed:12778114, PubMed:12837748, PubMed:12929931, PubMed:14605447, PubMed:14645221, PubMed:14716005, PubMed:14752053, PubMed:15075319, PubMed:15186775, PubMed:15297880, PubMed:15509808, PubMed:15731352, PubMed:15890677, PubMed:16478997, PubMed:16574662, PubMed:16617102, PubMed:16864582, PubMed:17226766, PubMed:17872950, PubMed:18273021, PubMed:19217391, PubMed:19680224, PubMed:20081228, PubMed:23145062, PubMed:23999430, PubMed:24177535, PubMed:24413532, PubMed:8684459, PubMed:8917528, PubMed:9528808, PubMed:9590696, PubMed:9862959, PubMed:9887100). Interacts with TRIP4 (PubMed:25219498). Directly interacts with ZBTB49; this interaction leads to synergistic transactivation of CDKN1A (PubMed:25245946). Interacts with NR4A3 (By similarity). Interacts with ZNF451 (PubMed:24324267). Interacts with ATF5; EP300 is required for ATF5 and CEBPB interaction and DNA binding (By similarity). Interacts with HSF1 (PubMed:27189267). Interacts with ZBTB48/TZAP (PubMed:24382891). Interacts with STAT1; the interaction is enhanced upon IFN-gamma stimulation (PubMed:26479788). Interacts with HNRNPU (via C-terminus); this interaction enhances DNA-binding of HNRNPU to nuclear scaffold/matrix attachment region (S/MAR) elements (PubMed:11909954). Interacts with BCL11B (PubMed:27959755, PubMed:16809611).

Post-translational Modifications: Acetylated on Lys at up to 17 positions by intermolecular autocatalysis. Deacetylated in the transcriptional repression domain (CRD1) by SIRT1, preferentially at Lys-1020. Deacetylated by

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	Observed: 300 kDa Predicted: 265 kDa
NCBI Official Full Name	histone acetyltransferase p300 isoform 1
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

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/p300-antibody-immunohistochemistry-western-blot-elisa/322011>