



p300 Rabbit mAb

Catalog No	YP-rAb-17288
Isotype	IgG
Reactivity	Human,Mouse,Rat
Applications	WB,IF,IP,ELISA
Gene Name	EP300
Protein Name	Histone acetyltransferase p300
Purification Process	Protein A
Specificity	Endogenous
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source	Monoclonal, Rabbit,IgG
Dilution	WB 1:2000-1:10000; IF 1:200-1:1000; ELISA 1:5000-1:20000; IP 1:50-1:200;
Concentration	0.5 mg/ml
Purity	≥90%
Storage Stability	-15 ° C to -25 ° C/1 year(Do not lower than -25 ° C)
Synonyms	p300;Histone acetyltransferase p300;EP300 ; P300 ; Histone acetyltransferase p300 ; p300 HAT ; E1A-associated protein p300;EP300
Observed Band	300kD
Calculated Molecular Weight	264kD
Cell Pathway	Cytoplasm . Nucleus . Chromosome . Localizes to active chromatin: Colocalizes with histone H3 acetylated and/or crotonylated at 'Lys-18' (H3K18ac and H3K18cr, respectively) (PubMed:25818647). In the presence of ALX1 relocalizes from the cytoplasm to the nucleus. Colocalizes with ROCK2 in the nucleus (PubMed:12929931). .
Tissue Specificity	Epithelium,Skin,
Function	Catalytic activity:Acetyl-CoA + histone = CoA + acetylhistone.,Disease:Chromosomal aberrations involving EP300 may be a cause of acute myeloid leukemias. Translocation t(8;22)(p11;q13) with MYST3.,Disease:Defects in EP300 are a cause of Rubinstein-Taybi syndrome (RSTS) [MIM:180849]. RSTS is an autosomal dominant disorder characterized by craniofacial abnormalities, broad thumbs, broad big toes, mental retardation and a propensity for development of malignancies.,Disease:Defects in EP300 may play a role in epithelial cancer.,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. Binds to and may be involved in the transforming capacity of the adenovirus E1A protein. Mediates cAMP-gene regulation by binding specifically to phosphorylated CREB protein. In case of HIV-1 infection, it is recruited by the viral protein Tat. Regulates Tat's transactivating activity and may help inducing chromatin remodeling of proviral genes.,online information:P300/CBP entry,PTM:Acetylated on Lys at up to 17 positions by intermolecular autocatalysis.,PTM:Citrullinated at Arg-2142 by PAD14, which impairs methylation by CARM1 and promotes interaction with NCOA2/GRIP1.,PTM:Methylated at Arg-580 and Arg-604 in the KIX domain by CARM1, which blocks association with CREB, inhibits CREB signaling and activates apoptotic response. Also methylated at Arg-2142 by CARM1, which impairs interaction with NCOA2/GRIP1.,PTM:Phosphorylated.,similarity:Contains 1 bromo domain.,similarity:Contains 1 KIX domain.,similarity:Contains 1 ZZ-type zinc finger.,similarity:Contains 2 TAZ-type zinc fingers.,subunit:Interacts with phosphorylated CREB1 (By similarity). Interacts with DTX1, EID1, ELF3, FEN1, LEF1, NCOA1, NCOA6, NR3C1, PCAF, PELP1, PRDM6, SPIB, SRY, TCF7L2, TP53, 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. Interacts with HTLV-1 Tax and p30II. Interacts with and acetylates HIV-1 Tat.,

Background

E1A binding protein p300(EP300) Homo sapiens 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],

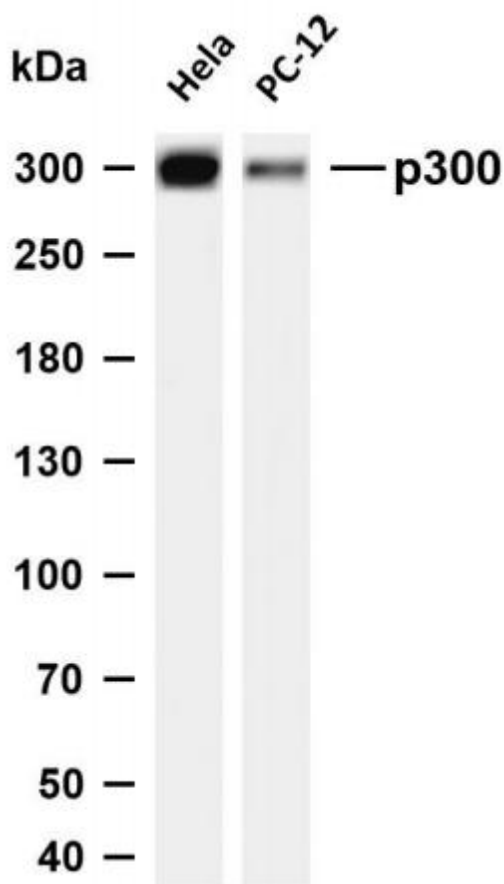
matters needing attention

Avoid repeated freezing and thawing!

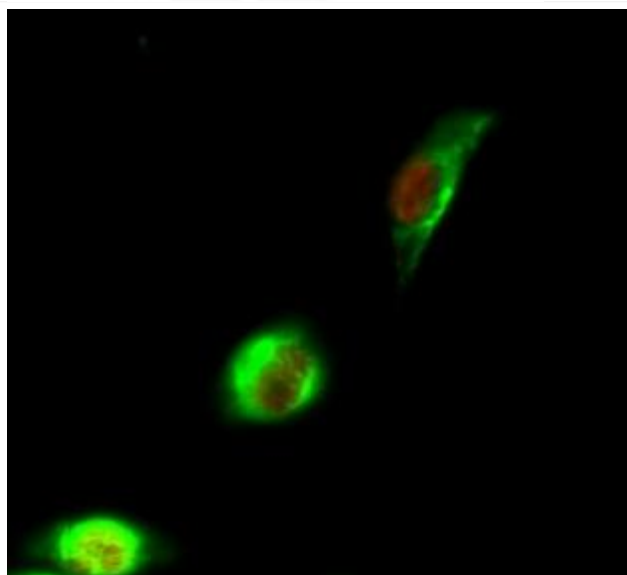
Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

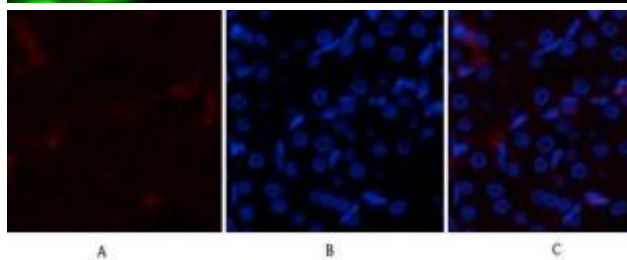




Various whole cell lysates were separated by 4-8% SDS-PAGE, and the membrane was blotted with anti-p300 antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: HeLa Lane 2: PC-12 Predicted band size: 264kDa Observed band size:300kDa



Immunofluorescence analysis of HeLa cell. 1, p300 Antibody (red) was diluted at 1:200 (4 ° overnight). p53 Monoclonal Antibody (6C4) (green) was diluted at 1:200 (4 ° overnight). 2, Goat Anti Rabbit Alexa Fluor 594 Catalog:



Immunofluorescence analysis of rat-kidney tissue. 1, p300 Antibody (red) was diluted at 1:200 (4 °, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50 min). 3, Picture B: DAPI (blue) 10 min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B

