Product Specification Sheet

Monoclonal Anti-Human p300 antibodies and control

Cat. # P3001-M	**Mouse** Monoclonal Anti-Human p300 IgG # 1, affinity pure **FORM:** Soln Lyophilized	**SIZE**: 100 ug
Cat. # P3001-C	HeLa Cell Nuclear Extract WB +ve control for p300 **FORM:** Soln Lyophilized	**SIZE**: 100 ul

The transcriptional coactivator and integrator **p300** and its closely related family member **CREBBP** mediate multiple signal-dependent transcriptional events. CREB binding protein (CBP) and p300 were both identified initially in protein interaction assays-the former through its association with the transcription factor CREB and the latter through its interaction with the adenoviral-transforming protein E1A. p300 contains 3 cysteine- and histidine-rich regions of which the most carboxy-terminal region interacts specifically with E1A. In its center, p300 contains a bromodomain, a hallmark of certain transcriptional coactivators. p300 and CREB-binding protein are highly related in primary structure. Several protein motifs such as a bromodomain, a KIX domain, and 3 regions rich in cys/his residues are well conserved between these 2 proteins. P300 protein is also a histone acetyltransferase that regulates transcription via chromatin remodeling and is important in the processes of cell proliferation and differentiation. Animals nullizygous for p300 died between days 9 and 11.5 of gestation, exhibiting defects in neurulation, cell proliferation, and heart development. Cells derived from p300-deficient embryos displayed specific transcriptional defects and proliferated poorly. These results provide evidence that a coactivator endowed with histone acetyltransferase activity is essential for mammalian cell proliferation and development. p300 is also a targeted by viral oncoproteins. it may also have a role in DNA repair synthesis through its interaction with proliferating cell nuclear antigen (PCNA).

Source of Antigen, Antibodies, and positive controls

A GST fusion protein containing the C-terminus of human p300 was used as antigen to produce monoclonal antibodies in **mice** (IgG1, **Cat # P3001-M**). Antibody was purified from ascites by protein G/A column chromatography. it is supplied in liquid (100 ug/100 ul) or in powder form.

Goat Anti-Mouse IgG-HRP cat # 40320 (AP, biotin, FITC conjugates also available)

HeLa cell nuclear extract (**Cat # P3001-C**) was prepared by the method of Dingam et al (1983) in RIPA buffer (20 mM Hepes, pH 7.9, 20% v/v glycerol, 0.1M KCL, 0.2 mM EDTA, 0.5 mM PMSF, and 0.5 mM DTT). It is supplied in 1X sample buffer (reduced) (100 ul; 1.0 mg/ml). It can be directly loaded at 10-15 ul/lane to visualize the 300 kDa p300 protein using the antibodies. Store frozen at –20oC is suitable aliquots. Do not freeze and thaw.

Form & Storage

Form & Storage of Antibodies/Peptide Control

Affinity pure IgG

100 ug/100ul solution lyophilized powder

Supplied in **Buffer**: PBS+0.1% BSA

Reconstitute powder in PBS at 1mg/ml

Storage

Short-term: unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

Long-term: at –20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20oC or below.
Shipping: 4oC for solutions and room temp for powder.

Recommended Usage

Western Blotting at 2-6 ug/ml detected p300 in Hela nuclear cell extract (25-50 ug protein). P300 mol wt ~300 kda.

Immunoprecipitation: 5-10 ug anti-p300 immunoprecipitated p300 from Hela nuclear extract.

Histochemistry & Immunofluorescence: not tested. We recommend a dilution of 1:200 to 1:500 (1).

Specificity & Cross-reactivity

The p3001-M reacts with p300 from human, mouse, and rat p300. Antibody crossreactivity in various other species is not established. This antibody does not recognize CBP. P3001-C HeLa cell nuclear extract (# P3001-C) can be used as positive control in Western blot.

General References:

Arany Z et al. (1995) Nature 374: 81-84; Arany Z et al (1994) Cell 77, 799-800; Eckner R et al (1994) Genes Dev. 8, 869-884; Gayther SA et al (2000) Nature Genet. 24, 300-303; Hasan S et al (2001) Mol. Cell 7, 1221-1231; Ida K et al (1997) Blood 90, 4699-4704; Dingham JD et al (1983) Nucl. Acid. Res. 11, 14751489

*This product is for In vitro research use only.

Related material available from ADI

Ant-p300, CBP, ACTR etc

Recycle immuno blots in Just 5-10 min. (use the same strip for CP, p300 etc) New formulation will strip antibodies in just a few minutes at room temp. (no boiling or pungent mercaptoethanol).

P3001-M, P3001-C 70308A

Alpha Diagnostic Intl Inc., 6203 Woodlake Center Dr, San Antonio, TX 78244, USA; **Email**: service@4adi.com

India Contact:

Life Technologies (India) Pvt. Ltd.

306, Aggarwal City Mall, Opposite M2K Pitampura, Delhi – 110034 (INDIA). Ph: +91-11-42208000, 42208111, 42208222, Mobile: +91-9810521400, Fax: +91-11-42208444
Email: customerservice@lifetechindia.com Website: www.lifetechindia.com