

Product Specification Sheet

Monoclonal Anti-Human p300 antibodies and control

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

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 **mouse** (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