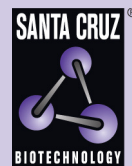


p300 (C-20): sc-585



The Power to Question

BACKGROUND

Cyclic AMP-regulated gene expression frequently involves a DNA element designated the cAMP-regulated enhancer (CRE). Many transcription factors, including the protein CREB, which is activated as a result of phosphorylation by protein kinase A, bind to this element. It has been shown that protein kinase A-mediated CREB phosphorylation results in its binding to a nuclear protein designated CBP (for CREB-binding protein). These findings suggest that CBP has many of the properties expected of a CREB co-activator. Another high molecular weight transcriptional adapter protein, designated p300, is characterized by three cysteine- and histidine-rich regions, of which the most carboxy-terminal region specifically binds the adenovirus E1A protein. p300 molecules lacking an intact E1A binding site bypass E1A repression even in the presence of high concentrations of E1A. Sequence analysis of CBP and p300 has revealed substantial homology, arguing that these proteins are members of a conserved family of co-activators.

CHROMOSOMAL LOCATION

Genetic locus: EP300 (human) mapping to 22q13.2; Ep300 (mouse) mapping to 15 E1.

SOURCE

p300 (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of p300 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-585 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

p300 (C-20) is recommended for detection of p300 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

p300 (C-20) is also recommended for detection of p300 in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for p300 siRNA (h): sc-29431, p300 siRNA (m): sc-29432, p300 shRNA Plasmid (h): sc-29431-SH, p300 shRNA Plasmid (m): sc-29432-SH, p300 shRNA (h) Lentiviral Particles: sc-29431-V and p300 shRNA (m) Lentiviral Particles: sc-29432-V.

Molecular Weight of p300: 300 kDa.

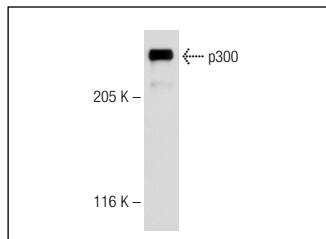
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

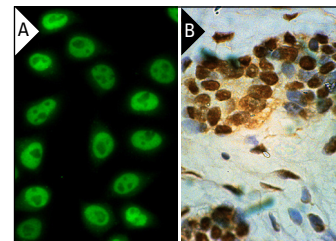
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



p300 (C-20): sc-585. Western blot analysis of p300 expression in Jurkat nuclear extract.



p300 (C-20): sc-585. Immunofluorescence staining of formalin-fixed HeLa cells showing nuclear localization. Kindly provided by Yang Xiang, Ph.D., Division of Newborn Medicine, Boston Children's Hospital, Cell Biology Department, Harvard Medical School (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma tissue showing nuclear localization (B).

SELECT PRODUCT CITATIONS

- Rosow, K.L., et al. 2001. The Ewing's sarcoma gene product functions as a transcriptional activator. *Cancer Res.* 61: 2690-2695.
- Wang, C., et al. 2001. Inhibition of cellular proliferation through IκB kinase-independent and peroxisome proliferator-activated receptor γ-dependent repression of cyclin D1. *Mol. Cell. Biol.* 21: 3057-3070.
- Hyndman, B.D., et al. 2012. E2A proteins enhance the histone acetyltransferase activity of the transcriptional co-activators CBP and p300. *Biochim. Biophys. Acta* 1819: 446-453.
- Kaur, J. and Tikoo, K. 2013. p300/CBP dependent hyperacetylation of histone potentiates anticancer activity of gefitinib nanoparticles. *Biochim. Biophys. Acta* 1833: 1028-1040.
- Su, M.Y., et al. 2013. Identification of biologically relevant enhancers in human erythroid cells. *J. Biol. Chem.* 288: 8433-8444.
- Shen, M., et al. 2013. The chromatin remodeling factor CSB recruits histone acetyltransferase PCAF to rRNA gene promoters in active state for transcription initiation. *PLoS ONE* 8: e62668.

RESEARCH USE

For research use only, not for use in diagnostic procedures.



Try **p300 (F-4): sc-48343** or **p300 (NM11): sc-32244**, our highly recommended monoclonal alternatives to p300 (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **p300 (F-4): sc-48343**.