SANTA CRUZ BIOTECHNOLOGY, INC.

p400 (2A7): sc-517046

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

NuAR is a multi-protein histone acetyltransferase complex that functions to acetylate the nucleosomal Histones H4 and H2A, thereby activating transcription of select target genes. p400, also known as EP400 (E1A binding protein p400) or mDomino, localizes to the nucleus and is a component of the NuAR complex. Expressed in brain, liver, thymus, lung, spleen, colon and kidney, p400 regulates the transcriptional activity of proteins such as MZF-1 and contributes to the ATPase and helicase activities of NuA4. p400 is a SWI2/SNF2-related protein that can interact with the adenovirus oncoprotein E1A, thus activating the proapoptotic activity of E1A. The ability of p400 to regulate transcriptional and apoptotic activity suggests that the NuAR complex may be a crucial component of cell proliferation, transformation and, possibly, carcinogenesis. Five isoforms of p400 exist due to alternative splicing events.

REFERENCES

1. Ogawa, H., et al. 2003. A SWI2/SNF2-type ATPase/helicase protein, mDomino, interacts with myeloid zinc finger protein 2A (MZF-2A) to regulate its transcriptional activity. Genes Cells 8: 325-339.
2. Chan, H.M., et al. 2005. The p400 E1A-associated protein is a novel component of the p53→p21 senescence pathway. Genes Dev. 19: 196-201.
3. Samuelson, A.V., et al. 2005. p400 is required for E1A to promote apoptosis. J. Biol. Chem. 280: 21915-21923.
4. Tyteca, S., et al. 2006. Tip60 and p400 are both required for UV-induced apoptosis but play antagonistic roles in cell cycle progression. EMBO J. 25: 1680-1689.
5. Turnell, A.S. and Mymryk, J.S. 2006. Roles for the coactivators CBP and p300 and the APC/C E3 ubiquitin ligase in E1A-dependent cell transformation. Br. J. Cancer 95: 555-560.
6. Flinterman, M.B., et al. 2007. p400 function is required for the adenovirus E1A-mediated suppression of EGFR and tumour cell killing. Oncogene 26: 6863-6874.
7. Ueda, T., et al. 2007. Critical role of the p400/mDomino chromatin-remodeling ATPase in embryonic hematopoiesis. Genes Cells 12: 581-592.

CHROMOSOMAL LOCATION

Genetic locus: EP400 (human) mapping to 12q24.33.

SOURCE

p400 (2A7) is a mouse monoclonal antibody raised against amino acids 743-850 representing partial length p400 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

p400 (2A7) is recommended for detection of p400 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for p400 siRNA (h): sc-62743, p400 shRNA Plasmid (h): sc-62743-SH and p400 shRNA (h) Lentiviral Particles: sc-62743-V.

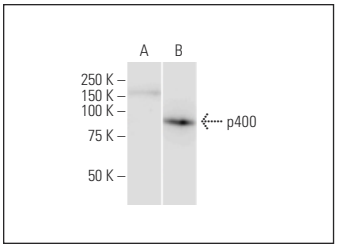
Molecular Weight of p400: 350 kDa.

Positive Controls: p400 transfected 293T whole cell lysate.

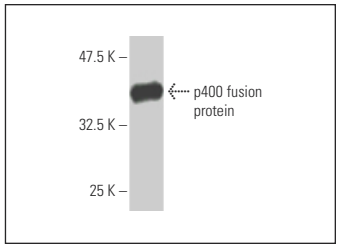
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



p400 (2A7): sc-517046. Western blot analysis of p400 expression in non-transfected (**A**) and p400 transfected (**B**) 293T whole cell lysates.



p400 (2A7): sc-517046. Western blot analysis of human recombinant p400 fusion protein.

RESEARCH USE

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

PROTOCOLS

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