SANTA CRUZ BIOTECHNOLOGY, INC.

INO80A (H-300): sc-134689

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The Power to Question

BACKGROUND

INO80A, also known as INO80 or INOC1, is a 1,556 amino acid nuclear protein that contains one DBINO domain, one helicase ATP-binding domain and one helicase C-terminal domain. Expressed in a variety of tissues, including liver, brain and pancreas, INO80A functions as a component of the INO80 chromatin remodeling complex where it acts as a putative DNA helicase that binds DNA and exhibits DNA-dependent ATPase activity. The gene encoding INO80A maps to human chromosome 15, which houses over 700 genes and comprises nearly 3% of the human genome. Angelman syndrome, Prader-Willi syndrome, Tay-Sachs disease and Marfan syndrome are all associated with defects in chromosome 15-localized genes.

REFERENCES

1. Shen, X., Mizuguchi, G., Hamiche, A. and Wu, C. 2000. A chromatin remodelling complex involved in transcription and DNA processing. Nature 406: 541-544.
2. Bakshi, R., Prakash, T., Dash, D. and Brahmachari, V. 2004. In silico characterization of the INO80 subfamily of SWI2/SNF2 chromatin remodeling proteins. Biochem. Biophys. Res. Commun. 320: 197-204.
3. Bakshi, R., Mehta, A.K., Sharma, R., Maiti, S., Pasha, S. and Brahmachari, V. 2006. Characterization of a human SWI2/SNF2 like protein hINO80: demonstration of catalytic and DNA binding activity. Biochem. Biophys. Res. Commun. 339: 313-320.
4. Cai, Y., Jin, J., Gottschalk, A.J., Yao, T., Conaway, J.W. and Conaway, R.C. 2006. Purification and assay of the human INO80 and SRCAP chromatin remodeling complexes. Methods 40: 312-317.
5. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 610169. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
6. Yao, T., Song, L., Jin, J., Cai, Y., Takahashi, H., Swanson, S.K., Washburn, M.P., Florens, L., Conaway, R.C., Cohen, R.E. and Conaway, J.W. 2008. Distinct modes of regulation of the Uch37 deubiquitinating enzyme in the proteasome and in the INO80 chromatin-remodeling complex. Mol. Cell 31: 909-917.
7. Trujillo, K.M. and Osley, M.A. 2008. INO80 meets a fork in the road. Nat. Struct. Mol. Biol. 15: 332-334.

CHROMOSOMAL LOCATION

Genetic locus: INO80 (human) mapping to 15q15.1; Ino80 (mouse) mapping to 2 E5.

SOURCE

INO80A (H-300) is a rabbit polyclonal antibody raised against amino acids 875-1174 mapping within an internal region of INO80A of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

INO80A (H-300) is recommended for detection of INO80A 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

INO80A (H-300) is also recommended for detection of INO80A in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for INO80A siRNA (h): sc-90293, INO80A siRNA (m): sc-146239, INO80A shRNA Plasmid (h): sc-90293-SH, INO80A shRNA Plasmid (m): sc-146239-SH, INO80A shRNA (h) Lentiviral Particles: sc-90293-V and INO80A shRNA (m) Lentiviral Particles: sc-146239-V.

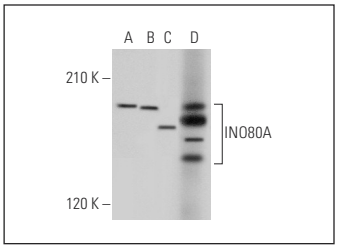
Molecular Weight of INOC1: 177 kDa.

Positive Controls: mouse liver extract: sc-2256, Hep G2 cell lysate: sc-2227 or HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), 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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



INO80A (H-300): sc-134689. Western blot analysis of INO80A expression in Hep G2 (**A**), HEK293 (**B**) and HeLa (**C**) whole cell lysates and mouse liver tissue extract (**D**).

STORAGE

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

RESEARCH USE

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