

HDAC11 (S-15): sc-54220

BACKGROUND

Histone deacetylases (HDACs) play an important role in the modification of chromatin structure and thus in the suppression and activation of transcription and cellular differentiation. There are 11 members in the HDAC family that are classified into four classes. Class I HDACs represent homologs of the yeast histone deacetylase RPD3, class II HDACs share strong homology with the yeast histone deacetylase HDA1, class III HDAC are closely related to the yeast SIR2 protein, and class IV HDACs comprises Histone deacetylase 11 (HDAC11)-related enzymes. HDAC11 contains 347 amino acid residues. HDAC11 contains conserved residues in the catalytic core regions shared by both class I and II mammalian HDAC enzymes. Expression of HDAC11 is high in the kidney, heart, brain, skeletal muscle, and testis, and it localizes to the cell nucleus. The human gene encoding for HDAC11 maps to chromosome 3p25.1.

REFERENCES

- Gao, L., Cueto, M.A., Asselbergs, F. and Atadja, P. 2002. Cloning and functional characterization of HDAC11, a novel member of the human histone deacetylase family. *J. Biol. Chem.* 277: 25748-25755.
- Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607226. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Gregoret, I.V., Lee, Y.M. and Goodson, H.V. 2004. Molecular evolution of the histone deacetylase family: functional implications of phylogenetic analysis. *J. Mol. Biol.* 338: 17-31.
- Bradbury, C.A., Khanim, F.L., Hayden, R., Bunce, C.M., White, D.A., Drayson, M.T., Craddock, C. and Turner, B.M. 2005. Histone deacetylases in acute myeloid leukaemia show a distinctive pattern of expression that changes selectively in response to deacetylase inhibitors. *Leukemia* 19: 1751-1759.
- Voelter-Mahlknecht, S., Ho, A.D. and Mahlkecht, U. 2005. Chromosomal organization and localization of the novel class IV human histone deacetylase 11 gene. *Int. J. Mol. Med.* 16: 589-598.
- Lindberg, D., Akerström, G. and Westin, G. 2007. Mutational analyses of WNT7A in sporadic malignant pancreatic endocrine tumours. *Clin. Endocrinol.* 66: 110-114.

CHROMOSOMAL LOCATION

Genetic locus: HDAC11 (human) mapping to 3p25.1; Hdac11 (mouse) mapping to 6 D1.

SOURCE

HDAC11 (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of HDAC11 of human origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-54220 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HDAC11 (S-15) is recommended for detection of HDAC11 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

HDAC11 (S-15) is also recommended for detection of HDAC11 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for HDAC11 siRNA (h): sc-106896, HDAC11 siRNA (m): sc-145909, HDAC11 siRNA (r): sc-156104, HDAC11 shRNA Plasmid (h): sc-106896-SH, HDAC11 shRNA Plasmid (m): sc-145909-SH, HDAC11 shRNA Plasmid (r): sc-156104-SH, HDAC11 shRNA (h) Lentiviral Particles: sc-106896-V, HDAC11 shRNA (m) Lentiviral Particles: sc-145909-V and HDAC11 shRNA (r) Lentiviral Particles: sc-156104-V.

Molecular Weight of HDAC11: 39 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

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



Try **HDAC11 (C-5): sc-390737**, our highly recommended monoclonal alternative to HDAC11 (S-15).