

HDAC11 (Y-25): sc-130776

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 4 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., et al. 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/>
- Gregoretti, I.V., et al. 2004. Molecular evolution of the histone deacetylase family: functional implications of phylogenetic analysis. *J. Mol. Biol.* 338: 17-31.
- Bradbury, C.A., et al. 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., et al. 2005. Chromosomal organization and localization of the novel class IV human histone deacetylase 11 gene. *Int. J. Mol. Med.* 16: 589-598.

CHROMOSOMAL LOCATION

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

SOURCE

HDAC11 (Y-25) is a purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of HDAC11 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml 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.

RESEARCH USE

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

APPLICATIONS

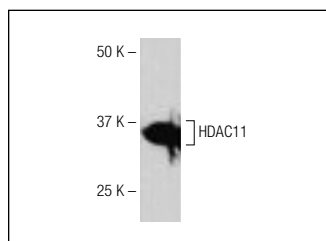
HDAC11 (Y-25) is recommended for detection of HDAC11 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), 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).

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

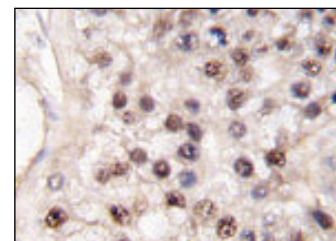
Molecular Weight of HDAC11: 39 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209 or mouse brain extract: sc-2253.

DATA



HDAC11 (Y-25): sc-130776. Western blot analysis of HDAC11 expression in mouse brain tissue extract.



HDAC11 (Y-25): sc-130776. Immunoperoxidase staining of formalin-fixed, paraffin-embedded testicle tumor tissue showing nuclear localization.

SELECT PRODUCT CITATIONS

- Lian, Z.R., et al. 2012. Suppression of histone deacetylase 11 promotes expression of IL-10 in Kupffer cells and induces tolerance following orthotopic liver transplantation in rats. *J. Surg. Res.* 174: 359-368.
- Zhang, Z., et al. 2015. Interferon regulatory factor 1 marks activated genes and can induce target gene expression in systemic lupus erythematosus. *Arthritis Rheumatol.* 67: 785-796.

PROTOCOLS

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Try **HDAC11 (C-5): sc-390737**, our highly recommended monoclonal alternative to HDAC11 (Y-25).