SANTA CRUZ BIOTECHNOLOGY, INC.

HDAC6 (L-18): sc-5258

BACKGROUND

In the intact cell, DNA closely associates with histones and other nuclear proteins to form chromatin. The remodeling of chromatin is believed to be a critical component of transcriptional regulation and a major source of this remodeling is brought about by the acetylation of nucleosomal histones. Acetylation of lysine residues in the amino terminal tail domain of histone results in an allosteric change in the nucleosomal conformation and an increased accessibility to transcription factors by DNA. Conversely, the deacetylation of histones is associated with transcriptional silencing. Several mammalian proteins have been identified as nuclear histone acetylases, including GCN5, PCAF (p300/CBPassociated factor), p300/CBP, HAT1, and the TFIID subunit TAF II p250. Mammalian HDAC1 (also designated HD1), HDAC2 (also designated RPD3) and HDAC3-6, have been identified as histone deacetylases.

CHROMOSOMAL LOCATION

Genetic locus: HDAC6 (human) mapping to Xp11.23; Hdac6 (mouse) mapping to X A1.1.

SOURCE

HDAC6 (L-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of HDAC6 of mouse origin.

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-5258 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HDAC6 (L-18) is recommended for detection of HDAC6 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).

Suitable for use as control antibody for HDAC6 siRNA (h): sc-35544, HDAC6 siRNA (m): sc-35545, HDAC6 shRNA Plasmid (h): sc-35544-SH, HDAC6 shRNA Plasmid (m): sc-35545-SH, HDAC6 shRNA (h) Lentiviral Particles: sc-35544-V and HDAC6 shRNA (m) Lentiviral Particles: sc-35545-V.

Molecular Weight of HDAC6: 160 kDa.

Positive Controls: K-562 nuclear extract: sc-2130, K-562 whole cell lysate: sc-2203 or Jurkat nuclear extract: sc-2132.

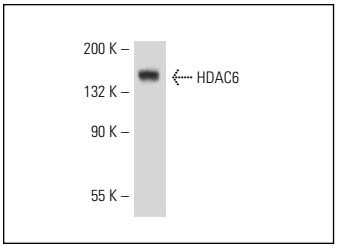
STORAGE

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

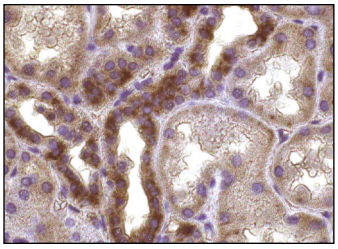
RESEARCH USE

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

DATA



HDAC6 (L-18): sc-5258. Western blot analysis of HDAC6 expression in K-562 nuclear extract.



HDAC6 (L-18): sc-5258. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules.

SELECT PRODUCT CITATIONS

1. Klappacher, G.W., et al. 2002. An induced Ets repressor complex regulates growth arrest during terminal macrophage differentiation. Cell 109: 169-180.
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3. Lundh, M., et al. 2010. Lysine deacetylases are produced in pancreatic beta cells and are differentially regulated by proinflammatory cytokines. Diabetologia 53: 2569-2578.
4. Shimizu, E., et al. 2010. HDAC4 represses matrix metalloproteinase-13 transcription in osteoblastic cells, and parathyroid hormone controls this repression. J. Biol. Chem. 285: 9616-9626.
5. Gordon, J.A., et al. 2010. Pbx1 represses osteoblastogenesis by blocking Hoxa10-mediated recruitment of chromatin remodeling factors. Mol. Cell. Biol. 30: 3531-3541.
6. Gordon, J.A., et al. 2011. Epigenetic regulation of early osteogenesis and mineralized tissue formation by a HOXA10-PBX1-associated complex. Cells Tissues Organs 194: 146-150.
7. Liu, W., et al. 2012. HDAC6 regulates epidermal growth factor receptor (EGFR) endocytic trafficking and degradation in renal epithelial cells. PLoS ONE 7: e49418.
8. Kee, H.J., et al. 2013. HDAC inhibition suppresses cardiac hypertrophy and fibrosis in DOCA-salt hypertensive rats via regulation of HDAC6/HDAC8 enzyme activity. Kidney Blood Press. Res. 37: 229-239.
9. Cheema, M.U., et al. 2013. Aldosterone and angiotensin II induce protein aggregation in renal proximal tubules. Physiol. Rep. 1: e00064.
10. Sadaie, M., et al. 2013. Redistribution of the Lamin B1 genomic binding profile affects rearrangement of heterochromatic domains and SAHF formation during senescence. Genes Dev. 27: 1800-1808.