SANTA CRUZ BIOTECHNOLOGY, INC.

HDAC5 (P-16): sc-5252

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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/CBP associated 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: HDAC5 (human) mapping to 17q21.31; Hdac5 (mouse) mapping to 11 D.

SOURCE

HDAC5 (P-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HDAC5 of mouse origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-5252 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HDAC5 (P-16) is recommended for detection of HDAC5 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).

HDAC5 (P-16) is also recommended for detection of HDAC5 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for HDAC5 siRNA (h): sc-35542, HDAC5 siRNA (m): sc-35543, HDAC5 shRNA Plasmid (h): sc-35542-SH, HDAC5 shRNA Plasmid (m): sc-35543-SH, HDAC5 shRNA (h) Lentiviral Particles: sc-35542-V and HDAC5 shRNA (m) Lentiviral Particles: sc-35543-V.

Molecular Weight of HDAC5: 140-150 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, KNRK nuclear extract: sc-2141 or Jurkat nuclear extract: sc-2132.

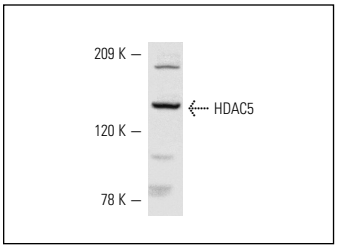
STORAGE

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

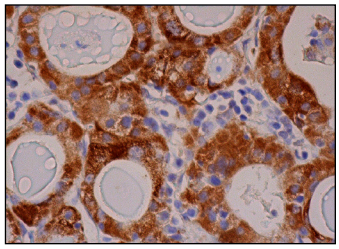
RESEARCH USE

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

DATA



HDAC5 (P-16): sc-5252. Western blot analysis of HDAC5 expression in Jurkat nuclear extract.



HDAC5 (P-16): sc-5252. Immunoperoxidase staining of formalin fixed, paraffin-embedded human thyroid gland tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Lemercier, C., et al. 2002. Class II histone deacetylases are directly recruited by Bcl6 transcriptional repressor. J. Biol. Chem. 277: 22045-22052.
2. Jin, C., et al. 2002. JDP2, a repressor of AP-1, recruits a histone deacetylase 3 complex to inhibit the retinoic acid-induced differentiation of F9 cells. Mol. Cell. Biol. 22: 4815-4826.
3. Klappacher, G.W., et al. 2002. An induced Ets repressor complex regulates growth arrest during terminal macrophage differentiation. Cell 109: 169-180.
4. Petrie, K., et al. 2003. The histone deacetylase 9 gene encodes multiple protein isoforms. J. Biol. Chem. 278: 16059-16072.
5. Chen, W., et al. 2005. Suppressors of α(1,3)fucosylation identified by expression cloning in the LEC11B gain-of-function CHO mutant. Glycobiology 15: 259-269.

PROTOCOLS

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