SANTA CRUZ BIOTECHNOLOGY, INC.

HDAC8 (H-145): sc-11405

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 HDAC8, isolated from human kidney, is a histone deacetylase that shares homology to other HDACs but has different tissue distribution. HDAC8 is localized to the nucleus and plays a role in the development of a broad range of tissues and in the etiology of cancer.

CHROMOSOMAL LOCATION

Genetic locus: HDAC8 (human) mapping to Xq13.1; Hdac8 (mouse) mapping to X D.

SOURCE

HDAC8 (H-145) is a rabbit polyclonal antibody raised against amino acids 1-145 of HDAC8 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

HDAC8 (H-145) is recommended for detection of HDAC8 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).

HDAC8 (H-145) is also recommended for detection of HDAC8 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for HDAC8 siRNA (h): sc-35548, HDAC8 siRNA (m): sc-35549, HDAC8 shRNA Plasmid (h): sc-35548-SH, HDAC8 shRNA Plasmid (m): sc-35549-SH, HDAC8 shRNA (h) Lentiviral Particles: sc-35548-V and HDAC8 shRNA (m) Lentiviral Particles: sc-35549-V.

Molecular Weight of HDAC8: 44 kDa.

Positive Controls: HDAC8 (h2): 293T Lysate: sc-177327, TF-1 cell lysate: sc-2412 or K-562 whole cell lysate: sc-2203.

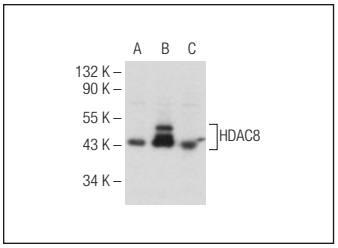
STORAGE

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

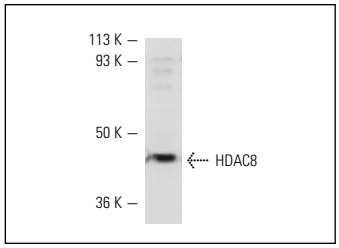
RESEARCH USE

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

DATA



HDAC8 (H-145): sc-11405. Western blot analysis of HDAC8 expression in non-transfected 293T: sc-117752 (**A**), human HDAC8 transfected 293T: sc-177327 (**B**) and K-562 (**C**) whole cell lysates.



HDAC8 (H-145): sc-11405. Western blot analysis of HDAC8 expression in TF-1 whole cell lysate.

SELECT PRODUCT CITATIONS

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2. Tang, Y.A., et al. 2010. A novel histone deacetylase inhibitor exhibits antitumor activity via apoptosis induction, F-actin disruption and gene acetylation in lung cancer. PLoS ONE 5: e12417.
3. Qian, Y., et al. 2011. ΔNp63, a target of DEC1 and histone deacetylase 2, modulates the efficacy of histone deacetylase inhibitors in growth suppression and keratinocyte differentiation. J. Biol. Chem. 286: 12033-12041.
4. Bantscheff, M., et al. 2011. Chemoproteomics profiling of HDAC inhibitors reveals selective targeting of HDAC complexes. Nat. Biotechnol. 29: 255-265.
5. Thakur, V.S., et al. 2012. Green tea polyphenols increase p53 transcriptional activity and acetylation by suppressing class I histone deacetylases. Int. J. Oncol. 41: 353-361.
6. Gupta, K., et al. 2012. Green tea polyphenols induce p53-dependent and p53-independent apoptosis in prostate cancer cells through two distinct mechanisms. PLoS ONE 7: e52572.
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8. Isaacs, J.T., et al. 2013. Tasquinimod is an allosteric modulator of HDAC4 survival signaling within the compromised cancer microenvironment. Cancer Res. 73: 1386-1399.