

HDAC6 (D-11): sc-28386



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: HDAC6 (human) mapping to Xp11.23.

SOURCE

HDAC6 (D-11) is a mouse monoclonal antibody raised against amino acids 916-1215 of HDAC6 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HDAC6 (D-11) is available conjugated to agarose (sc-28386 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-28386 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-28386 PE), fluorescein (sc-28386 FITC), Alexa Fluor® 488 (sc-28386 AF488), Alexa Fluor® 546 (sc-28386 AF546), Alexa Fluor® 594 (sc-28386 AF594) or Alexa Fluor® 647 (sc-28386 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-28386 AF680) or Alexa Fluor® 790 (sc-28386 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

HDAC6 (D-11) is recommended for detection of HDAC6 of 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 shRNA Plasmid (h): sc-35544-SH and HDAC6 shRNA (h) Lentiviral Particles: sc-35544-V.

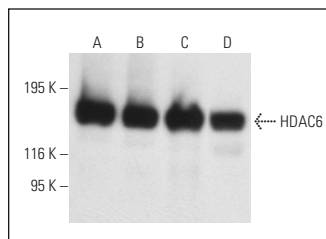
Molecular Weight of HDAC6: 160 kDa.

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

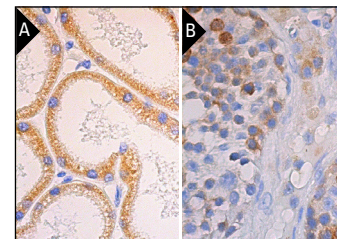
STORAGE

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

DATA



HDAC6 (D-11): sc-28386. Western blot analysis of HDAC6 expression in K-562 whole cell lysate (A) and K-562 (B), Jurkat (C) and HeLa (D) nuclear extracts.



HDAC6 (D-11): sc-28386. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing cytoplasmic staining of subset of cells in seminiferous ducts (B).

SELECT PRODUCT CITATIONS

- Salisbury, C.M. and Cravatt, B.F. 2007. Activity-based probes for proteomic profiling of histone deacetylase complexes. *Proc. Natl. Acad. Sci. USA* 104: 1171-1176.
- Villella, V.R., et al. 2013. Disease-relevant proteostasis regulation of cystic fibrosis transmembrane conductance regulator. *Cell Death Differ.* 20: 1101-1115.
- Kowshik, J., et al. 2014. Ellagic acid inhibits VEGF/VEGFR2, PI3K/Akt and MAPK signaling cascades in the hamster cheek pouch carcinogenesis model. *Anticancer Agents Med. Chem.* 14: 1249-1260.
- Giaginis, C., et al. 2015. Histone deacetylase (HDAC)-1, -2, -4 and -6 expression in human pancreatic adenocarcinoma: associations with clinicopathological parameters, tumor proliferative capacity and patients' survival. *BMC Gastroenterol.* 15: 148.
- Salemi, L.M., et al. 2017. Inhibition of HDAC6 activity through interaction with RanBPM and its associated CTLH complex. *BMC Cancer* 17: 460.
- Li, L., et al. 2018. Recombinant truncated TGF-β receptor II attenuates carbon tetrachloride-induced epithelial-mesenchymal transition and liver fibrosis in rats. *Mol. Med. Rep.* 17: 315-321.
- You, Z., et al. 2019. Requirement for p62 acetylation in the aggregation of ubiquitylated proteins under nutrient stress. *Nat. Commun.* 10: 5792.
- Wang, J., et al. 2020. Triptolide induces atrophy of myotubes by triggering IRS-1 degradation and activating the FoxO3 pathway. *Toxicol. In Vitro* 65: 104793.

RESEARCH USE

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