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HDAC6 Antibody
Catalog # ASC11826

Specification

HDAC6 Antibody - Product Information

Application	**WB, IHC, IF**
Primary Accession	Q9UBN7
Other Accession	NP_006035, 13128864
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**Predicted: 134 kDa** **Observed: 145 kDa KDa**
Application Notes	**HDAC6 body can be used for detection of HDAC6 by Western blot at 0.5 - 1 µg/ml. Antibody can also be used for Immunohistochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL.**

HDAC6 Antibody - Additional Information

Gene ID **10013**

Target/Specificity
HDAC6; HDAC6 antibody is human and mouse reactive. Multiple isoforms of HDAC6 are known to exist. HDAC6 antibody is predicted to not cross-react with other members of the HDAC family.

Reconstitution & Storage
HDAC6 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.

Precautions
HDAC6 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

HDAC6 Antibody - Protein Information

Name HDAC6 {ECO:0000303|PubMed:10220385, ECO:0000312|HGNC:HGNC:14064}

Function
Responsible for the deacetylation of lysine residues on the N-terminal part of the core histones (H2A, H2B, H3 and H4) (PubMed:10220385). Histone deacetylation gives a tag for epigenetic repression and plays an important role in transcriptional regulation, cell cycle progression and developmental events (PubMed:10220385). Histone deacetylases act via the formation of large multiprotein complexes (PubMed:10220385). In addition to histones, deacetylates other proteins, such as CTTN, tubulin and SQSTM1 (PubMed:<a href="http://www.uniprot.org/citations/12024216"

target="_blank">12024216, PubMed:20308065, PubMed:26246421, PubMed:31857589, PubMed:30538141). Plays a central role in microtubule-dependent cell motility by mediating deacetylation of tubulin (PubMed:12024216, PubMed:20308065, PubMed:26246421). Required for cilia disassembly; via deacetylation of alpha-tubulin (PubMed:17604723, PubMed:26246421). Promotes deacetylation of CTTN, leading to actin polymerization, promotion of autophagosome-lysosome fusion and completion of autophagy (PubMed:30538141). Involved in the MTA1-mediated epigenetic regulation of ESR1 expression in breast cancer (PubMed:24413532). Promotes odontoblast differentiation following IPO7-mediated nuclear import and subsequent repression of RUNX2 expression (By similarity). In addition to its protein deacetylase activity, plays a key role in the degradation of misfolded proteins: when misfolded proteins are too abundant to be degraded by the chaperone refolding system and the ubiquitin-proteasome, mediates the transport of misfolded proteins to a cytoplasmic juxtanuclear structure called aggresome (PubMed:17846173). Probably acts as an adapter that recognizes polyubiquitinated misfolded proteins and target them to the aggresome, facilitating their clearance by autophagy (PubMed:17846173).

Cellular Location
Cytoplasm. Cytoplasm, cytoskeleton. Nucleus {ECO:0000250|UniProtKB:Q9Z2V5}. Perikaryon {ECO:0000250|UniProtKB:Q9Z2V5}. Cell projection, dendrite {ECO:0000250|UniProtKB:Q9Z2V5}. Cell projection, axon {ECO:0000250|UniProtKB:Q9Z2V5}. Cell projection, cilium. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cytoskeleton, cilium basal body. Note=It is mainly cytoplasmic, where it is associated with microtubules

HDAC6 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

HDAC6 Antibody - Images

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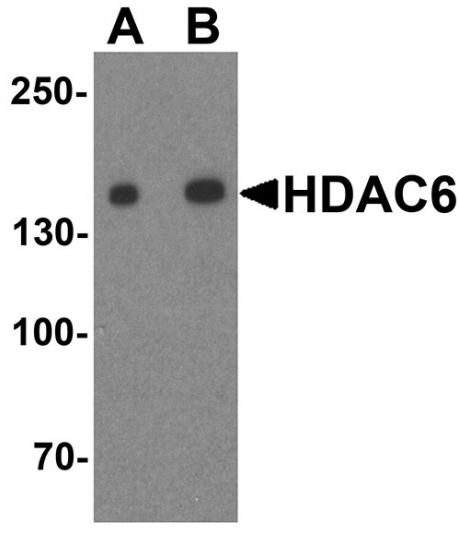
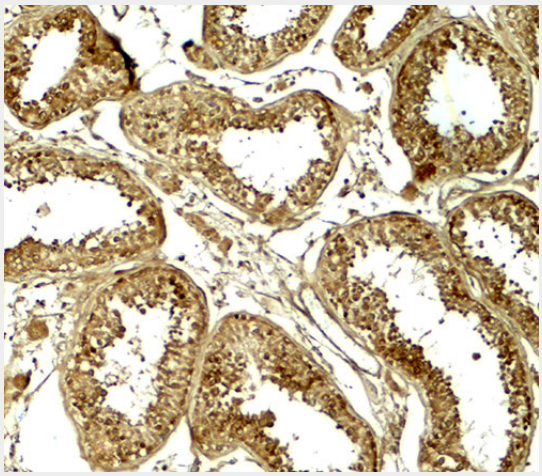
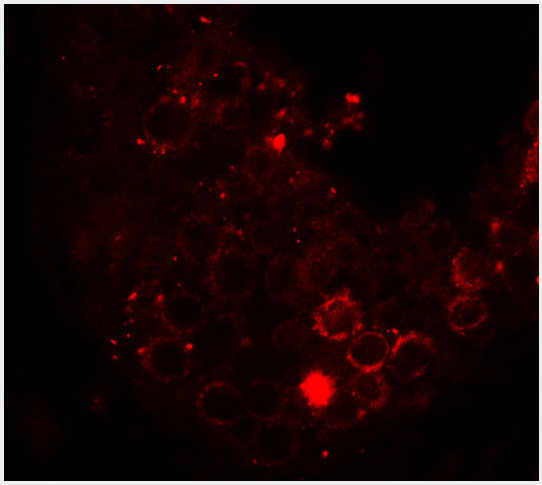


Western blot analysis of HDAC6 in human testis tissue lysate with HDAC6 antibody at (A) 0.5 and (B) 1 µg/ml.



Immunohistochemistry of HDAC6 in human testis tissue with HDAC6 antibody at 5 µg/ml.



Immunofluorescence of HDAC6 in human testis tissue with HDAC6 antibody at 20 µg/ml.

HDAC6 Antibody - Background

The histone deacetylase (HDAC) family contains multiple members which are divided into four

classes. Class II of the HDAC family comprises six members, HDAC4, 5, 6, 7, 9 and 10, each of which appear to have tissue-specific roles (1). HDAC6 contains an internal duplication of two catalytic domains which appear to function independently of each other (2). HDAC6 has been shown to be part of the microtubule network and acts as a specific alpha-tubulin deacetylase, and has been suggested to be a potential therapeutic target in neurodegenerative disease (3).

HDAC6 Antibody - References

de Ruijter AJ, van Gennip AH, Caron HN, et al. Histone deacetylases (HDACs): characterization of the classical HDAC family. Biochem. J. 2003; 370:737-49.
Grozinger CM, Hassig CA, and Schrieber SL. Three proteins define a class of human histone deacetylases related to yeast Hda1p. Proc. Natl. Acad. Sci. USA 1999; 96:4868-73.
Li G, Jiang H, Chang M, et al. HDAC6: a-tubulin decetylase: a potential therapeutic target in neurodegenerative disease. J. Neurol. Sci. 2011; 304:1-8.