

HDAC6 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP1106a

Specification

HDAC6 Antibody (C-term) - Product Information

Application Primary Accession Other Accession Reactivity Host	WB, IHC-P,E <u>Q9UBN7</u> <u>NP_006035</u> Human Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	1182-1215

HDAC6 Antibody (C-term) - Additional Information

Gene ID 10013

Other Names Histone deacetylase 6, HD6, HDAC6, KIAA0901

Target/Specificity This HDAC6 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1182-1215 amino acids from the C-terminal region of human HDAC6.

Dilution WB~~1:2000 IHC-P~~1:100

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions HDAC6 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

HDAC6 Antibody (C-term) - 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:<u>10220385</u>). 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:12024216, PubMed:20308065, PubMed:26246421, PubMed:30538141, PubMed:31857589). 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:<u>30538141</u>). 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 ubiguitin-proteasome, mediates the transport of misfolded proteins to a cytoplasmic juxtanuclear structure called aggresome (PubMed: 17846173). Probably acts as an adapter that recognizes polyubiguitinated 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

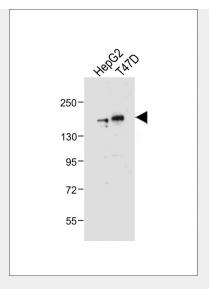
HDAC6 Antibody (C-term) - Protocols

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

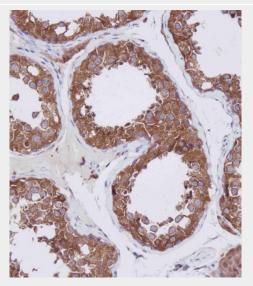
- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

HDAC6 Antibody (C-term) - Images





All lanes : Anti-HDAC6 Antibody (C-term) at 1:2000 dilution Lane 1: HepG2 whole cell lysate Lane 2: T47D whole cell lysate Lysates/proteins at 20 μ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 131 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Immunohistochemical analysis of AP1106A on paraffin-embedded Human testis tissue. Tissue was fixed with formaldehyde at room temperature. Heat induced epitope retrieval was performed by EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:100) for 1 hour at room temperature. Undiluted CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.

HDAC6 Antibody (C-term) - Background

HDAC6 (histone deacetylase 6) is responsible for the deacetylation of lysine residues on the N-terminal part of the core histones (H2A, H2B, H3 and H4). Histone deacetylation gives a tag for epigenetic repression and plays an important role in transcriptional regulation, cell cycle progression and developmental events. Histone deacetylases act via the formation of large multiprotein complexes. HDAC6 plays a central role in microtubule-dependent cell motility via deacetylation of tubulin, and has been shown to interact with HDAC11, SIRT2, and F-actin. HDAC6 is ubiquitinated, but its polyubiquitination however does not lead to degradation. HDAC is also a potential target of sumoylation.



HDAC6 Antibody (C-term) - References

Hook, S.S., et al., Proc. Natl. Acad. Sci. U.S.A. 99(21):13425-13430 (2002). Grozinger, C.M., et al., Proc. Natl. Acad. Sci. U.S.A. 96(9):4868-4873 (1999). Wolffe, A.P., Nature 387(6628):16-17 (1997). Pazin, M.J., et al., Cell 89(3):325-328 (1997). Mahlknecht, U., et al., Cytogenet. Cell Genet. 93 (1-2), 135-136 (2001). HDAC6 Antibody (C-term) - Citations

- ASK1-Mediated Phosphorylation Blocks HDAC6 Ubiquitination and Degradation to Drive the Disassembly of Photoreceptor Connecting Cilia
- <u>Recycling endosomal CD133 functions as an inhibitor of autophagy at the pericentrosomal region.</u>
- Deacetylation of α -tubulin and cortactin is required for HDAC6 to trigger ciliary disassembly.
- <u>Acetylproteomic analysis reveals functional implications of lysine acetylation in human</u> <u>spermatozoa (sperm).</u>
- PCM1 recruits Plk1 to the pericentriolar matrix to promote primary cilia disassembly before mitotic entry.