

Anti-HDAC6 Antibody
Catalog # ABO10915**Specification**

Anti-HDAC6 Antibody - Product Information

Application	WB
Primary Accession	Q9UBN7
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Histone deacetylase 6(HDAC6) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-HDAC6 Antibody - Additional Information

Gene ID 10013

Other Names

Histone deacetylase 6, HD6, 3.5.1.98, HDAC6, KIAA0901

Calculated MW

131419 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Rat, Human, Mouse, By Heat

Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse

Subcellular Localization

Nucleus. Cytoplasm. Perikaryon . Cell projection, dendrite . Cell projection, axon . It is mainly cytoplasmic, where it is associated with microtubules.

Protein Name

Histone deacetylase 6

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human HDAC6(1195-1209aa LLDVKNIAHQNKFGGE), different from the related rat and mouse sequences by two amino acids.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the histone deacetylase family. HD type 2 subfamily.

Anti-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: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 juxtannuclear 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,

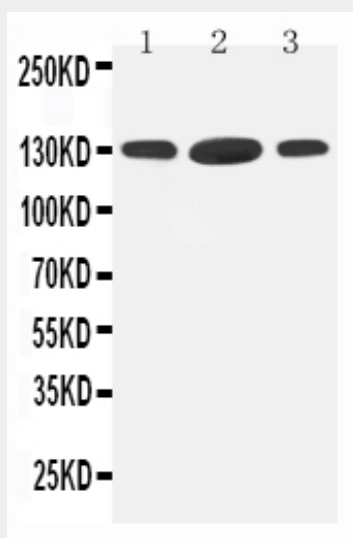
cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cytoskeleton, cilium basal body. Note=It is mainly cytoplasmic, where it is associated with microtubules

Anti-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 Cytometry](#)
- [Cell Culture](#)

Anti-HDAC6 Antibody - Images



Anti-HDAC6 antibody, ABO10915, Western blotting
Lane 1: Rat Brain Tissue Lysate
Lane 2: Rat Testis Tissue Lysate
Lane 3: HELA Cell Lysate

Anti-HDAC6 Antibody - Background

HDAC6, also called KIAA0901, is a member belongs to class II of the histone deacetylase/acuc/apha family of proteins that is an enzyme that in humans is encoded by the HDAC6 gene. The HDAC6 gene is mapped to chromosome Xp11.23. HDAC6 contains an internal duplication of two catalytic domains which appear to function independently of each other. The protein possesses histone deacetylase activity and represses transcription. HDAC6 functions as a tubulin deacetylase. And it is localized exclusively in the cytoplasm, where it associates with microtubules and localizes with the microtubule motor complex. HDAC6 could bind both polyubiquitinated misfolded proteins and dynein motors, thereby recruiting misfolded protein cargo to dynein motors for transport to aggresomes. Furthermore, expression of HDAC6 was sufficient to rescue degeneration associated with UPS dysfunction in vivo in an autophagy-dependent manner. HDAC6 is a central component of the stress response that regulates SG formation and potentially contributes to control of RNA metabolism and translation.