

**HDAC6 Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO2221a****Specification****HDAC6 Antibody - Product Information**

Application	E, WB, FC
Primary Accession	<a href="#">Q9UBN7</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2b
Calculated MW	131.4kDa KDa

**Description**

Histones play a critical role in transcriptional regulation, cell cycle progression, and developmental events. Histone acetylation/deacetylation alters chromosome structure and affects transcription factor access to DNA. The protein encoded by this gene belongs to class II of the histone deacetylase/acuc/apha family. It contains an internal duplication of two catalytic domains which appear to function independently of each other. This protein possesses histone deacetylase activity and represses transcription.

**Immunogen**

Purified recombinant fragment of human HDAC6 (AA: 482-800) expressed in E. Coli.

**Formulation**

Purified antibody in PBS with 0.05% sodium azide

**HDAC6 Antibody - Additional Information**

**Gene ID** 10013

**Other Names**

Histone deacetylase 6, HD6, 3.5.1.98, HDAC6, KIAA0901

**Dilution**

E~~1/10000  
WB~~1/500 - 1/2000  
FC~~1/200 - 1/400

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**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:<a href="http://www.uniprot.org/citations/10220385" target="\_blank">10220385</a>). Histone deacetylation gives a tag for epigenetic repression and plays an important role in transcriptional regulation, cell cycle progression and developmental events (PubMed:<a href="http://www.uniprot.org/citations/10220385" target="\_blank">10220385</a>). Histone deacetylases act via the formation of large multiprotein complexes (PubMed:<a href="http://www.uniprot.org/citations/10220385" target="\_blank">10220385</a>). 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</a>, PubMed:<a href="http://www.uniprot.org/citations/20308065" target="\_blank">20308065</a>, PubMed:<a href="http://www.uniprot.org/citations/26246421" target="\_blank">26246421</a>, PubMed:<a href="http://www.uniprot.org/citations/31857589" target="\_blank">31857589</a>, PubMed:<a href="http://www.uniprot.org/citations/30538141" target="\_blank">30538141</a>). Plays a central role in microtubule-dependent cell motility by mediating deacetylation of tubulin (PubMed:<a href="http://www.uniprot.org/citations/12024216" target="\_blank">12024216</a>, PubMed:<a href="http://www.uniprot.org/citations/20308065" target="\_blank">20308065</a>, PubMed:<a href="http://www.uniprot.org/citations/26246421" target="\_blank">26246421</a>). Required for cilia disassembly; via deacetylation of alpha-tubulin (PubMed:<a href="http://www.uniprot.org/citations/17604723" target="\_blank">17604723</a>, PubMed:<a href="http://www.uniprot.org/citations/26246421" target="\_blank">26246421</a>). Promotes deacetylation of CTTN, leading to actin polymerization, promotion of autophagosome-lysosome fusion and completion of autophagy (PubMed:<a href="http://www.uniprot.org/citations/30538141" target="\_blank">30538141</a>). Involved in the MTA1-mediated epigenetic regulation of ESR1 expression in breast cancer (PubMed:<a href="http://www.uniprot.org/citations/24413532" target="\_blank">24413532</a>). 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:<a href="http://www.uniprot.org/citations/17846173" target="\_blank">17846173</a>). Probably acts as an adapter that recognizes polyubiquitinated misfolded proteins and target them to the aggresome, facilitating their clearance by autophagy (PubMed:<a href="http://www.uniprot.org/citations/17846173" target="\_blank">17846173</a>).

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