

**HDAC6 Antibody**  
**Rabbit Polyclonal Antibody**  
**Catalog # ABV10451****Specification**

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**HDAC6 Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">O9Z2V5</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	125787

**HDAC6 Antibody - Additional Information****Gene ID** 15185

Application & Usage	Western blotting (0.5-4 µg/ml) and Immunohistochemistry (20 µg/ml). However, the optimal conditions should be determined individually. The antibody detects ~134 kDa HDAC-6. Jurkat cell lysate can be used as a positive control. The antibody does not cross-react with other HDAC proteins including HDAC1, 2, 3, 4, 5, 7, and 8.
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**Other Names**

HD6, HDAC-6, histone deacetylase 6, JM21

**Target/Specificity**

HDAC6

**Antibody Form**

Liquid

**Appearance**

Colorless liquid

**Formulation**

100 µg (0.2 mg/ml) affinity purified rabbit anti-HDAC6 polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 30% glycerol, 0.5% BSA, 0.01% thimerosal.

**Handling**

The antibody solution should be gently mixed before use.

**Reconstitution & Storage**

-20 °C

**Background Descriptions**

## Precautions

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

## HDAC6 Antibody - Protein Information

**Name** Hdac6 {ECO:0000312|MGI:MGI:1333752}

### 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/9891014" target="\_blank">9891014</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/9891014" target="\_blank">9891014</a>). Histone deacetylases act via the formation of large multiprotein complexes (PubMed:<a href="http://www.uniprot.org/citations/9891014" target="\_blank">9891014</a>). In addition to histones, deacetylates other proteins, such as CTTN, tubulin and SQSTM1 (PubMed:<a href="http://www.uniprot.org/citations/19893491" target="\_blank">19893491</a>, PubMed:<a href="http://www.uniprot.org/citations/27737934" target="\_blank">27737934</a>). Plays a central role in microtubule-dependent cell motility by mediating deacetylation of tubulin (PubMed:<a href="http://www.uniprot.org/citations/19893491" target="\_blank">19893491</a>, PubMed:<a href="http://www.uniprot.org/citations/27737934" target="\_blank">27737934</a>). Required for cilia disassembly; via deacetylation of alpha-tubulin (By similarity). Promotes deacetylation of CTTN, leading to actin polymerization, promotion of autophagosome-lysosome fusion and completion of autophagy (By similarity). Promotes odontoblast differentiation following IPO7-mediated nuclear import and subsequent repression of RUNX2 expression (PubMed:<a href="http://www.uniprot.org/citations/35922041" target="\_blank">35922041</a>). 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 (By similarity). 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/22819792" target="\_blank">22819792</a>).

### Cellular Location

Cytoplasm. Cytoplasm, cytoskeleton. Nucleus. Perikaryon Cell projection, dendrite. Cell projection, axon. Cell projection, cilium {ECO:0000250|UniProtKB:Q9UBN7}. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome {ECO:0000250|UniProtKB:Q9UBN7} Cytoplasm, cytoskeleton, cilium basal body {ECO:0000250|UniProtKB:Q9UBN7}. Note=It is mainly cytoplasmic, where it is associated with microtubules.

### Tissue Location

Expressed in neurons of the cortex. Expressed in Purkinje cells. Detected in keratinocytes (at protein level)

## 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](#)

#### **HDAC6 Antibody - Images**

#### **HDAC6 Antibody - Background**

Human HDAC6 (1215 a.a. residues) possesses two separate putative catalytic domains, both of which are fully functional and contribute independently to the overall activity of HDAC6. A very potent NES is present at the amino-terminus of HDAC6, which was found to play an important role in regulating the shuttling of HDAC6 protein between cytoplasm and nucleus. The shuttling process may be a critical regulatory mechanism of HDAC6 function. HDAC6 may participate in coordinating expression of a group of genes involved in the remodeling of chromatin during cell differentiation.