

# HDAC6 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP1106a

## Product Information

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<b>Application</b>	IHC-P, WB
<b>Primary Accession</b>	<a href="#">Q9UBN7</a>
<b>Other Accession</b>	<a href="#">NP_006035</a>
<b>Reactivity</b>	Human, Mouse
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Calculated MW</b>	131419
<b>Antigen Region</b>	1182-1215

## Additional Information

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<b>Gene ID</b>	10013
<b>Other Names</b>	Histone deacetylase 6, HD6, HDAC6, KIAA0901
<b>Target/Specificity</b>	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.
<b>Dilution</b>	IHC-P~~1:100~500 WB~~1:1000
<b>Format</b>	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.
<b>Storage</b>	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.
<b>Precautions</b>	HDAC6 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	HDAC6 {ECO:0000303   PubMed:10220385, ECO:0000312   HGNC:HGNC:14064}
<b>Function</b>	Responsible for the deacetylation of lysine residues on the N-terminal part of the core histones (H2A, H2B, H3 and H4) (PubMed: <a href="#">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:[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:[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

## Background

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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.

## References

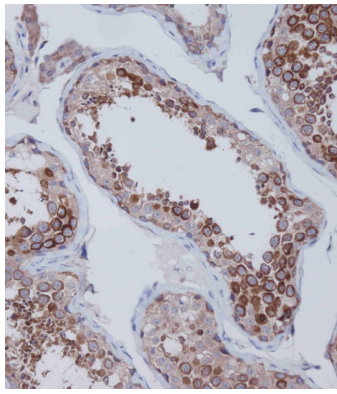
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- Hook, S.S., et al., Proc. Natl. Acad. Sci. U.S.A. 99(21):13425-13430 (2002).  
Grozinger, C.M., et al., Proc. Natl. Acad. Sci. U.S.A. 96(9):4868-4873 (1999).  
Wolffe, A.P., Nature 387(6628):16-17 (1997).  
Pazin, M.J., et al., Cell 89(3):325-328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

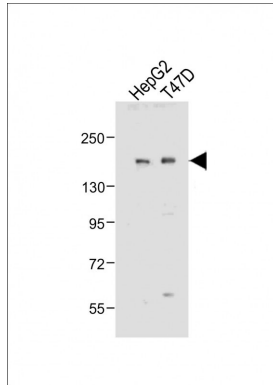
## Images

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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.



All lanes : Anti-HDAC6 Antibody (C-term) at 1:1000 dilution Lane 1: HepG2 whole cell lysate Lane 2: T47D whole cell lysate Lysates/proteins at 20 µg 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.

## Citations

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

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