

HDAC6 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP1106a**Specification**

HDAC6 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession [O9UBN7](#)
Other Accession [NP_006035](#)

HDAC6 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 10013

Other Names

Histone deacetylase 6, HD6, HDAC6, KIAA0901

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP1106a](/product/products/AP1106a) was selected from the C-term region of human HDAC6. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

HDAC6 Antibody (C-term) Blocking Peptide - 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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/10220385)). Histone deacetylases act via the formation of large multiprotein complexes (PubMed:[10220385](http://www.uniprot.org/citations/10220385)). In addition to histones, deacetylates other proteins, such as CTTN, tubulin and SQSTM1 (PubMed:[12024216](http://www.uniprot.org/citations/12024216), PubMed:[20308065](http://www.uniprot.org/citations/20308065), PubMed:[26246421](http://www.uniprot.org/citations/26246421)

target="_blank">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 juxtanuclear 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

HDAC6 Antibody (C-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

HDAC6 Antibody (C-term) Blocking Peptide - Images

HDAC6 Antibody (C-term) Blocking Peptide - 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) Blocking Peptide - 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).