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HDAC6 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP1106b

Specification

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

Primary Accession	Q9UBN7
Other Accession	NP_006035

HDAC6 Antibody (N-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 AP1106b was selected from the N-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 (N-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). 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:<a href="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 (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

HDAC6 Antibody (N-term) Blocking Peptide - Images

HDAC6 Antibody (N-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 (N-term) Blocking Peptide - References

North, B.J., et al., Mol. Cell 11(2):437-444 (2003).Hubbert, C., et al., Nature 417(6887):455-458 (2002).Gao, L., et al., J. Biol. Chem. 277(28):25748-25755 (2002).Hook, S.S., et al., Proc. Natl. Acad. Sci. U.S.A. 99(21):13425-13430 (2002).Kirsh, O., et al., EMBO J. 21(11):2682-2691 (2002).