

HDAC5 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP1105c**Specification**

HDAC5 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession [O9UQL6](#)
Other Accession [NP_005465](#)

HDAC5 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 10014

Other Names

Histone deacetylase 5, HD5, Antigen NY-CO-9, HDAC5, KIAA0600

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP1105c](/product/products/AP1105c) was selected from the C-term region of human HDAC5. 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.

HDAC5 Antibody (C-term) Blocking Peptide - Protein Information

Name HDAC5

Synonyms KIAA0600

Function

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. Involved in muscle maturation by repressing transcription of myocyte enhancer MEF2C. During muscle differentiation, it shuttles into the cytoplasm, allowing the expression of myocyte enhancer factors. Involved in the MTA1-mediated epigenetic regulation of ESR1 expression in breast cancer. Serves as a corepressor of RARA and causes its deacetylation (PubMed:<http://www.uniprot.org/citations/28167758>). In

association with RARA, plays a role in the repression of microRNA-10a and thereby in the inflammatory response (PubMed:28167758).

Cellular Location

Nucleus. Cytoplasm. Note=Shuttles between the nucleus and the cytoplasm. In muscle cells, it shuttles into the cytoplasm during myocyte differentiation. The export to cytoplasm depends on the interaction with a 14-3-3 chaperone protein and is due to its phosphorylation at Ser-259 and Ser-498 by AMPK, CaMK1 and SIK1

Tissue Location

Ubiquitous.

HDAC5 Antibody (C-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

HDAC5 Antibody (C-term) Blocking Peptide - Images

HDAC5 Antibody (C-term) Blocking Peptide - Background

Histone deacetylase (HDAC) and histone acetyltransferase (HAT) are enzymes that regulate transcription by selectively deacetylating or acetylating the ϵ -amino groups of lysines located near the amino termini of core histone proteins (1). Eight members of HDAC family have been identified in the past several years (2,3). These HDAC family members are divided into two classes, I and II. Class I of the HDAC family comprises four members, HDAC-1, 2, 3, and 8, each of which contains a deacetylase domain exhibiting from 45 to 93% identity in amino acid sequence. Class II of the HDAC family comprises HDAC-4, 5, 6, and 7, the molecular weights of which are all about two-fold larger than those of the class I members, and the deacetylase domains are present within the C-terminal regions, except that HDAC-6 contains two copies of the domain, one within each of the N-terminal and C-terminal regions. Human HDAC-1, 2 and 3 were expressed in various tissues, but the others (HDAC-4, 5, 6, and 7) showed tissue-specific expression patterns (3). These results suggested that each member of the HDAC family exhibits a different, individual substrate specificity and function in vivo.

HDAC5 Antibody (C-term) Blocking Peptide - References

Meinke PT and Liberato P. Curr Med Chem, 8(2): 211- 235 (2001). Nakayama T and Takami Y. J Biochem (Tokyo) 129 (4): 491-499 (2001). Cress, W.D. and Seto, E. J. Cell. Physiol. 184, 1-16 (2000).