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HDAC5 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP1105a

Specification

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

Primary Accession Q9UQL6

HDAC5 Antibody (N-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 AP1105a was selected from the N-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 (N-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: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 (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

HDAC5 Antibody (N-term) Blocking Peptide - Images

HDAC5 Antibody (N-term) Blocking Peptide - Background

Histones play a critical role in transcriptional regulation, cell cycle progression, and developmental events. Histone acetylation/deacetylation alters chromosome structure and affects transcription factor access to DNA. HDAC5 belongs to the class II histone deacetylase/acuc/apha family. It possesses histone deacetylase activity and represses transcription when tethered to a promoter. It coimmunoprecipitates only with the HDAC3 family member and might form multicomplex proteins. It also interacts with myocyte enhancer factor-2 (MEF2) proteins, resulting in repression of MEF2-dependent genes. This protein is thought to be associated with colon cancer.

HDAC5 Antibody (N-term) Blocking Peptide - References

Berger, I., et al., J. Biol. Chem. 278(20):17625-17635 (2003).Zhang, C.L., et al., Mol. Cell. Biol. 22(20):7302-7312 (2002).Lemercier, C., et al., J. Biol. Chem. 277(24):22045-22052 (2002).Huang, Y., et al., Cancer Res. 62(10):2913-2922 (2002).Grozinger, C.M., et al., Proc. Natl. Acad. Sci. U.S.A. 97(14):7835-7840 (2000).