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HDAC10 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP1110a

Specification

HDAC10 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q969S8

HDAC10 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 83933

Other Names
Histone deacetylase 10, HD10, HDAC10

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP1110a was selected from the N-term region of human HDAC10. 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.

HDAC10 Antibody (N-term) Blocking Peptide - Protein Information

Name HDAC10

Function
Polyamine deacetylase (PDAC), which acts preferentially on N(8)-acetylspermidine, and also on acetylcadaverine and acetylputrescine (PubMed:28516954). Exhibits attenuated catalytic activity toward N(1),N(8)-diacetylspermidine and very low activity, if any, toward N(1)-acetylspermidine (PubMed:28516954). Histone deacetylase activity has been observed in vitro (PubMed:11861901, PubMed:11726666, PubMed:11677242, PubMed:11739383). Has also been shown to be involved in MSH2 deacetylation (PubMed:26221039). The

physiological relevance of protein/histone deacetylase activity is unclear and could be very weak (PubMed:28516954). May play a role in the promotion of late stages of autophagy, possibly autophagosome- lysosome fusion and/or lysosomal exocytosis in neuroblastoma cells (PubMed:23801752, PubMed:29968769). May play a role in homologous recombination (PubMed:21247901). May promote DNA mismatch repair (PubMed:26221039).

Cellular Location
Cytoplasm. Nucleus Note=Excluded from nucleoli.

Tissue Location
Widely expressed with high levels in liver and kidney.

HDAC10 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

HDAC10 Antibody (N-term) Blocking Peptide - Images

HDAC10 Antibody (N-term) Blocking Peptide - Background

Histone deacetylase (HDAC) and histone acetyltransferase (HAT) are enzymes that regulate transcription by selectively deacetylating or acetylating the eta-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, individualsubstrate specificity and function in vivo. HDAC8 interacts with PEPB2-MYH11, a fusion protein consisting of the 165 N-terminal residues of CBF-beta (PEPB2) with the tail region of MYH11 produced by the inversion Inv(16)(p13q22), a translocation associated with acute myeloid leukemia of M4EO subtype. The PEPB2-MYH1 fusion protein also interacts with RUNX1, a well known transcriptional regulator, suggesting that the interaction with HDAC8 may participate to convert RUNX1 into a constitutive transcriptional repressor.

HDAC10 Antibody (N-term) Blocking Peptide - References

Tong, J.J., et al., Nucleic Acids Res. 30(5):1114-1123 (2002).Fischer, D.D., et al., J. Biol. Chem. 277(8):6656-6666 (2002).Guardiola, A.R., et al., J. Biol. Chem. 277(5):3350-3356 (2002).Kao, H.Y., et al., J. Biol. Chem. 277(1):187-193 (2002).