10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.622.0609

HDAC3 Antibody (C-term) Blocking peptide

Synthetic peptide
Catalog # BP13297b

Specification

HDAC3 Antibody (C-term) Blocking peptide - Product Information

Primary Accession O15379

HDAC3 Antibody (C-term) Blocking peptide - Additional Information

Gene ID 8841

Other Names
Histone deacetylase 3, HD3, RPD3-2, SMAP45, HDAC3

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP13297b was selected from the C-term region of HDAC3. 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.

HDAC3 Antibody (C-term) Blocking peptide - Protein Information

Name HDAC3

Function
Responsible for the deacetylation of lysine residues on the N-terminal part of the core

HDAC3 Antibody (C-term) Blocking peptide - Background

Histones play a critical role in transcriptionalregulation, cell cycle progression, and developmental events.Histone acetylation/deacetylation alters chromosome structure andaffects transcription factor access to DNA. The protein encoded bythis gene belongs to the histone deacetylase/acuc/apha family. Ithas histone deacetylase activity and represses transcription whentethered to a promoter. It may participate in the regulation oftranscription through its binding with the zinc-fingertranscription factor YY1. This protein can also down-regulate p53function and thus modulate cell growth and apoptosis. This gene isregarded as a potential tumor suppressor gene. [provided byRefSeq].

HDAC3 Antibody (C-term) Blocking peptide - References

Minamiya, Y., et al. Tumour Biol. 31(5):533-539(2010)Kim, H.C., et al. Cell. Mol. Life Sci. 67(20):3499-3510(2010)Yang, Z., et al. Clin. Chem. Lab. Med. (2010) In press :Kim, T., et al. Psychiatry Res 178(2):266-269(2010)Adams, H., et al. Expert Opin. Ther. Targets 14(6):577-584(2010)

histones (H2A, H2B, H3 and H4), and some other non-histone substrates. 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. Participates in the BCL6 transcriptional repressor activity by deacetylating the H3 'Lys-27' (H3K27) on enhancer elements, antagonizing EP300 acetyltransferase activity and repressing proximal gene expression. Probably participates in the regulation of transcription through its binding to the zinc-finger transcription factor YY1; increases YY1 repression activity. Required to repress transcription of the POU1F1 transcription factor. Acts as a molecular chaperone for shuttling phosphorylated NR2C1 to PML bodies for sumoylation (PubMed:21444723, PubMed:23911289). Contributes, together with XBP1 isoform 1, to the activation of NFE2L2-mediated HMOX1 transcription factor gene expression in a PI(3)K/mTORC2/Akt-dependent signaling pathway leading to endothelial cell (EC) survival under disturbed flow/oxidative stress (PubMed:25190803). Regulates both the transcriptional activation and repression phases of the circadian clock in a deacetylase activity-independent manner (By similarity). During the activation phase, promotes the accumulation of ubiquitinated ARNTL/BMAL1 at the E-boxes and during the repression phase, blocks FBXL3-mediated CRY1/2 ubiquitination and promotes the interaction of CRY1 and ARNTL/BMAL1 (By similarity). The NCOR1-HDAC3 complex regulates the circadian expression of the core clock gene ARTNL/BMAL1 and the genes involved in lipid metabolism in the liver (By similarity). Serves as a corepressor of RARA, causing its deacetylation and inhibition of RARE DNA element binding (PubMed:28167758). In association with RARA, plays a role in the

repression of microRNA-10a and thereby in the inflammatory response (PubMed:28167758). Interacts with SETD5 (By similarity).

Cellular Location
Nucleus. Cytoplasm. Cytoplasm, cytosol. Note=Colocalizes with XBP1 and AKT1 in the cytoplasm (PubMed:25190803). Predominantly expressed in the nucleus in the presence of CCAR2.

Tissue Location
Widely expressed.

HDAC3 Antibody (C-term) Blocking peptide - Protocols

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

- Blocking Peptides