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HDAC4 Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP13715b

Specification

HDAC4 Antibody (C-term) Blocking peptide - Product Information

Primary Accession P56524

HDAC4 Antibody (C-term) Blocking peptide - Additional Information

Gene ID 9759

Other Names
Histone deacetylase 4, HD4, HDAC4, KIAA0288

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP13715b was selected from the C-term region of HDAC4. 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.

HDAC4 Antibody (C-term) Blocking peptide - Protein Information

Name HDAC4 (HGNC:14063)

Synonyms KIAA0288

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 via its interaction with the myocyte enhancer factors such as MEF2A, MEF2C and MEF2D. Involved in the MTA1-mediated epigenetic regulation of ESR1 expression in breast cancer. Deacetylates HSPA1A and HSPA1B at 'Lys-77' leading to their preferential binding to co-chaperone STUB1 (PubMed:27708256).

Cellular Location

Nucleus. Cytoplasm. Note=Shuttles between the nucleus and the cytoplasm. Upon muscle cells differentiation, it accumulates in the nuclei of myotubes, suggesting a positive role of nuclear HDAC4 in muscle differentiation. The export to cytoplasm depends on the interaction with a 14-3-3 chaperone protein and is due to its phosphorylation at Ser-246, Ser-467 and Ser-632 by CaMK4 and SIK1. The nuclear localization probably depends on sumoylation Interaction with SIK3 leads to HDAC4 retention in the cytoplasm (By similarity). {ECO:0000250|UniProtKB:Q6NZM9}

Tissue Location
Ubiquitous.

HDAC4 Antibody (C-term) Blocking peptide - Protocols

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

- Blocking Peptides

HDAC4 Antibody (C-term) Blocking peptide - Images

HDAC4 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 class II of the histone deacetylase/acuc/aphafamily. It possesses histone deacetylase activity and repressestranscription when tethered to a promoter. This protein does notbind DNA directly, but through transcription factors MEF2C andMEF2D. It seems to interact in a multiprotein complex with RbAp48and HDAC3.

HDAC4 Antibody (C-term) Blocking peptide - References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)Williams, S.R., et al. Am. J. Hum. Genet. 87(2):219-228(2010)Kim, T., et al. Psychiatry Res 178(2):266-269(2010)Pan, L., et al. Cell. Mol. Immunol. 7(3):221-226(2010)Smith, J.A., et al. Virol. J. 7, 237 (2010) :