

HDAC-4 Blocking Peptide
Catalog # PBV10258b**Specification**

HDAC-4 Blocking Peptide - Product Information

Primary Accession	P56524
Other Accession	NP_006028
Gene ID	9759
Calculated MW	119040

HDAC-4 Blocking Peptide - Additional Information**Gene ID** 9759**Application & Usage**

The peptide is used for blocking the antibody activity of HDAC-4. It usually blocks the antibody activity completely in Western blot analysis by incubating the peptide with equal volume of antibody for 30-60 minutes at 37°C.

Other Names

Histone deacetylase 4, HD4, 3.5.1.98, HDAC4, KIAA0288

Target/Specificity

HDAC-4

Formulation

50 µg (0.2 mg/ml) in phosphate buffered saline (PBS), pH 7.2, containing 50% glycerol, 1% BSA and 0.02% thimerosal.

Reconstitution & Storage

-20 °C

Background Descriptions**Precautions**

HDAC-4 Blocking Peptide is for research use only and not for use in diagnostic or therapeutic procedures.

HDAC-4 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.

HDAC-4 Blocking Peptide - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

HDAC-4 Blocking Peptide - Images