

HDAC4(N-term) mouse mAb

Catalog No :	YM1213
Reactivity :	Human
Applications :	WB;IP
Target :	HDAC4
Fields :	>>Apelin signaling pathway;>>Neutrophil extracellular trap formation;>>Alcoholism;>>Viral carcinogenesis;>>MicroRNAs in cancer
Gene Name :	hdac4
Human Gene Id :	9759
Human Swiss Prot No :	P56524
Mouse Swiss Prot No :	Q6NZM9
Immunogen :	Purified recombinant human HDAC4 protein fragments expressed in E.coli
Specificity :	This antibody detects endogenous levels of HDAC4 and does not cross-react with related proteins
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Monoclonal, Mouse
Dilution :	wb 1:1000
Purification :	The antibody was affinity-purified from mouse ascites by affinity-chromatography using epitope-specific immunogen.
Concentration :	1 mg/ml
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Observed Band :	140kD

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. The protein encoded by this gene belongs to class II of the histone deacetylase/acuc/alpha family. It possesses histone deacetylase activity and represses transcription when tethered to a promoter. This protein does not bind DNA directly, but through transcription factors MEF2C and MEF2D. It seems to interact in a multiprotein complex with RbAp48 and HDAC3. [provided by RefSeq, Jul 2008],

Function :

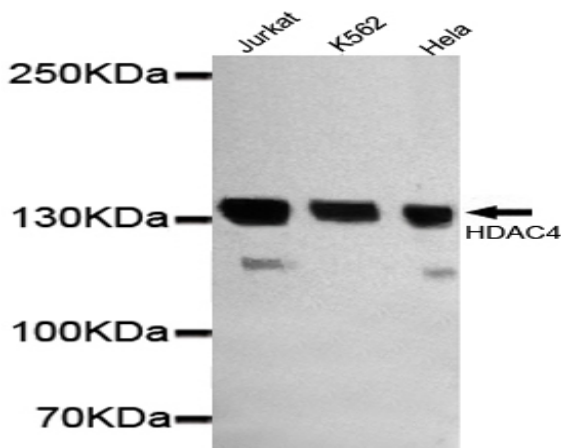
catalytic activity:Hydrolysis of an N(6)-acetyl-lysine residue of a histone to yield a deacetylated histone.,domain:The nuclear export sequence mediates the shuttling between the nucleus and the cytoplasm.,function:Responsible for the deacetylation of lysine residues on the N-terminal part of the core 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.,PTM:Phosphorylated by CaMK4 at Ser-246, Ser-467 and Ser-632. Phosphorylation at other residues is required for the interaction with 14-3-3.,PTM:Sumoylation on Lys-559 is promoted by the E3 SUMO-protein lig

Subcellular Location :

Nucleus. Cytoplasm. 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). .

Expression :

Ubiquitous.

Products Images

Western blot detection of HDAC4 in Jurkat, HeLa and K562 cell lysates using HDAC4 mouse mAb (1:1000 diluted). Predicted band size: 140KDa. Observed band size: 140KDa.

Immunoprecipitation analysis of HeLa cell lysates using HDAC4 mouse mAb.

