

HDAC4 (phospho Ser632) Polyclonal Antibody

Catalog No :	YP0125
Reactivity :	Human;Mouse;Rat
Applications :	WB;ELISA
Target :	HDAC4
Fields :	>>Apelin signaling pathway;>>Neutrophil extracellular trap formation;>>Alcoholism;>>Viral carcinogenesis;>>MicroRNAs in cancer
Gene Name :	HDAC4
Protein Name :	Histone deacetylase 4
Human Gene Id :	9759
Human Swiss Prot No :	P56524
Mouse Gene Id :	208727
Mouse Swiss Prot No :	Q6NZM9
Rat Gene Id :	363287
Rat Swiss Prot No :	Q99P99
Immunogen :	The antiserum was produced against synthesized peptide derived from human HDAC4 around the phosphorylation site of Ser632. AA range:598-647
Specificity :	Phospho-HDAC4 (S632) Polyclonal Antibody detects endogenous levels of HDAC4 protein only when phosphorylated at S632.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	WB 1:500 - 1:2000. ELISA: 1:20000. Not yet tested in other applications.

Purification :	The antibody was affinity-purified from rabbit antiserum 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 :	119kD
Cell Pathway :	Protein_Acetylation
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/apha 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.

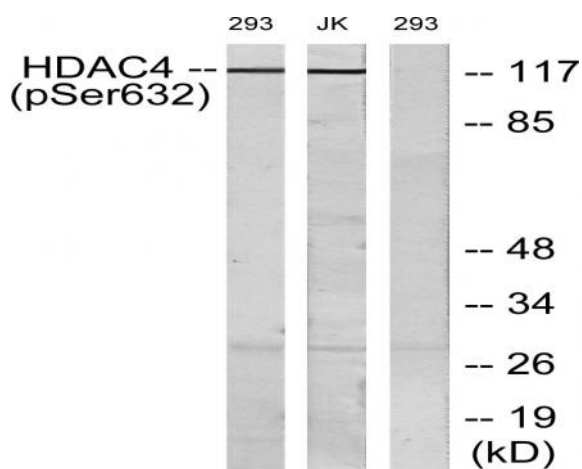
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Western Blot analysis of various cells using Phospho-HDAC4 (S632) Polyclonal Antibody diluted at 1:1000



Western blot analysis of HELA SH-SY5Y 3T3 lysis using Phospho-HDAC4 (S632) antibody. Antibody was diluted at 1:1000



Western blot analysis of lysates from 293 cells treated with etoposide 25uM 1 hour and Jurkat cells treated with etoposide 25uM 24hours, using HDAC4 (Phospho-Ser632) Antibody. The lane on the right is blocked with the phospho peptide.