Product Name: HDAC4 Rabbit Polyclonal Antibody
Catalog #: APRab11947

Summary

Production Name	HDAC4 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	HDAC4
Alternative Names	HDAC4; KIAA0288; Histone deacetylase 4; HD4
Gene ID	9759.0
SwissProt ID	P56524.The antiserum was produced against synthesized peptide derived from human HDAC4. AA range:598-647

Application

Dilution Ratio	WB 1:500 - 1:2000. ELISA: 1:20000. Not yet tested in other applications.
Molecular Weight	119kD

Background

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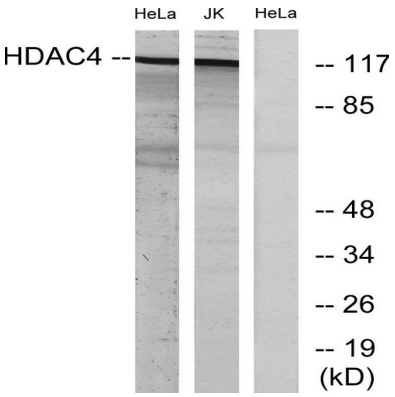
Histones play a critical role in transcriptional regulation, cell cycle progression, and developmental events. Histone acetylation/deacetylation alters chromosome structure and affects transcription factor access to DNA. The protein encoded by this gene belongs to class II of the histone deacetylase/acuc/apha 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],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 ligase RANBP2, and prevented by phosphorylation by CaMK4.,similarity:Belongs to the histone deacetylase family. Type 2 subfamily.,subcellular location: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. The nuclear localization probably depends on sumoylation.,subunit:Interacts with HDAC7 (By similarity). Homodimer. Homodimerization via its N-terminal domain. Interacts with MEF2C, AHRR, and NR2C1. Interacts with a 14-3-3 chaperone protein in a phosphorylation dependent manner. Interacts with BTBD14B (By similarity). Interacts with KDM5B.,tissue specificity:Ubiquitous.,

Research Area

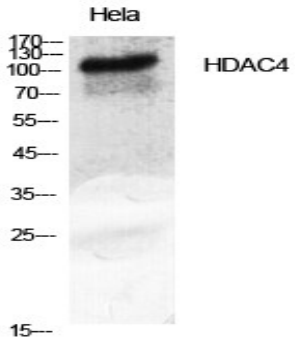
Protein_Acetylation

Image Data

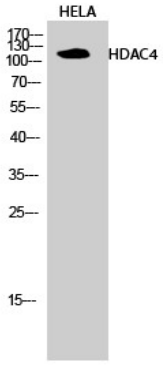


Western blot analysis of lysates from HeLa and Jurkat cells, using HDAC4 Antibody. The lane on the right is blocked with the

synthesized peptide.



Western Blot analysis of various cells using HDAC4 Polyclonal Antibody diluted at 1：2000



Western Blot analysis of HELA cells using HDAC4 Polyclonal Antibody diluted at 1：2000

Note

For research use only.