HDAC4 (Phospho Ser632) Rabbit pAb

CatalogNo: YP0125 Orthogonal Validated

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat

Applications
- WB,ELISA

MW
- 119kD (Observed)

Isotype
- IgG

Storage

Storage*	-15°C to -25°C/1 year (Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

WB 1:500-1:2000
ELISA 1:20000
Not yet tested in other applications.

Basic Information

Clonality	Polyclonal

Immunogen Information

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.The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):AQsSP

Target Information

Gene name HDAC4

Protein Name Histone deacetylase 4

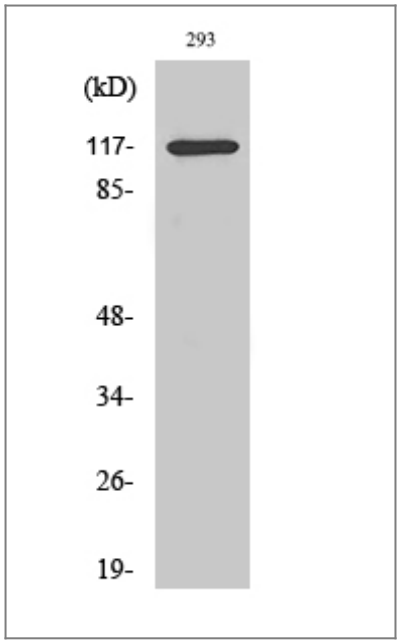
Organism	Gene ID	UniProt ID
Human	9759;	P56524;
Mouse	208727;	Q6NZM9;
Rat	363287;	Q99P99;

Cellular Localization 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) . .

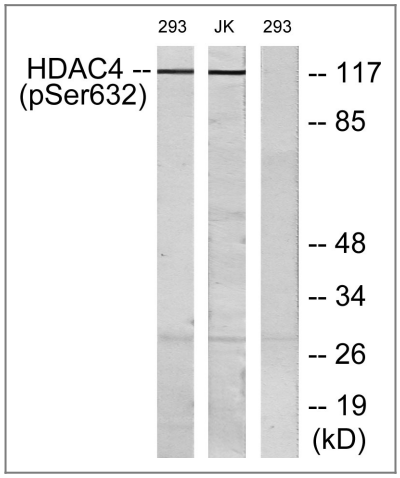
Tissue specificity Ubiquitous.

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 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. ,

Validation Data



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



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

Contact information

Orders:	order@immunoway.com
Support:	tech@immunoway.com
Telephone:	877-594-3616 (Toll Free), 408-747-0185
Website:	http://www.immunoway.com
Address:	2200 Ringwood Ave San Jose, CA 95131 USA

Please scan the QR code to access additional product information:
HDAC4 (Phospho Ser632) Rabbit pAb

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