HDAC4 (phospho Ser632) Polyclonal Antibody
Catalog \# AP67057

## Specification

HDAC4 (phospho Ser632) Polyclonal Antibody - Product Information

Application<br>WB<br>Primary Accession<br>P56524<br>Reactivity<br>Human, Mouse, Rat<br>Host<br>Rabbit<br>Clonality<br>Polyclonal

HDAC4 (phospho Ser632) Polyclonal Antibody - Additional Information

Gene ID 9759
Other Names
HDAC4; KIAA0288; Histone deacetylase 4; HD4
Dilution
WB~~Western Blot: 1/500-1/2000. ELISA: 1/20000. Not yet tested in other applications.

## Format

Liquid in PBS containing 50\% glycerol, 0.5\% BSA and 0.09\% (W/V) sodium azide.

## Storage Conditions

$-20^{\circ} \mathrm{C}$

HDAC4 (phospho Ser632) Polyclonal Antibody - 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:<a href="http://www.uniprot.org/citations/27708256" target="_blank">27708256</a>).

## 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.

## HDAC4 (phospho Ser632) Polyclonal Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

HDAC4 (phospho Ser632) Polyclonal Antibody - Images


HELA SH-SY5Y 3T3


15--
(kD)
117-
85-

48-

34-

26-

19-

HELA SH-SY5Y 3T3
$\stackrel{170-\mathrm{m}}{100-\mathrm{p}-\mathrm{HDAC4} \text { (S632) }}$
70--
55-
40-
35-
25-

15--

## HDAC4 (phospho Ser632) Polyclonal Antibody - Background

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).

