

# **HDAC4** Polyclonal Antibody

Catalog # AP70298

#### **Product Information**

Application WB Primary Accession P56524

Reactivity Human, Mouse, Rat

HostRabbitClonalityPolyclonalCalculated MW119040

### **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°C

#### **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:27708256).

**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}

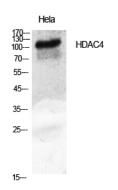
**Tissue Location** 

Ubiquitous.

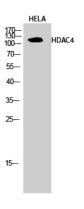
# **Background**

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).

## **Images**



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

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