

HDAC4 Rabbit mAb

Catalog # AP77568

Product Information

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| Application | WB, IF, ICC |
| Primary Accession | P56524 |
| Reactivity | Human |
| Host | Rabbit |
| Clonality | Monoclonal Antibody |
| Isotype | IgG |
| Conjugate | Unconjugated |
| Immunogen | A synthesized peptide derived from human HDAC4 |
| Purification | Affinity Chromatography |
| Calculated MW | 119040 |

Additional Information

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| Gene ID | 9759 |
| Other Names | HDAC4 |
| Dilution | WB~~1/500-1/1000 IF~~1:50~200 ICC~~N/A |
| Format | Liquid in 10mM PBS, pH 7.4, 150mM sodium chloride, 0.05% BSA, 0.02% sodium azide and 50% glycerol. |
| Storage | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles. |

Protein Information

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| 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.

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