

KD-Validated Anti-HDAC4 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody

Catalog # AGI1848

Product Information

Application	WB, FC, ICC
Primary Accession	P56524
Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	23GB865
Calculated MW	119040
Gene Name	HDAC4
Aliases	Histone Deacetylase 4; HD4; KIAA0288; HDAC-A; HA6116; HDAC-4; HDACA; EC 3.5.1.98; BDMR; Brachydactyly-Mental Retardation Syndrome; Histone Deacetylase A; NEDCHID; NEDCHF; AHO3
Immunogen	A synthesized peptide derived from human HDAC4

Additional Information

Gene ID	9759
Other Names	Histone deacetylase 4, HD4, 3.5.1.98, HDAC4 (HGNC:14063), KIAA0288

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.

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