HDAC4 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	HDAC4, Polyclonal Antibody
Full Product Name	HDAC4 Rabbit pAb
Product Gene Name	anti-HDAC4 antibody
Product Synonym Names	HD4; AHO3; BDMR; HDACA; HA6116; HDAC-4; HDAC-A
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	PBS with 0.02% Sodium Azide, 50% Glycerol, pH 7.3.
Purity/Purification	Affinity Purified
Preparation and Storage	Store at -20 degree C. Avoid freeze/thaw cycles.
Molecular Weight	117kDa
OMIM	600430
3D Structure	ModBase 3D Structure for P56524
Immunogen	A synthetic peptide of human HDAC4
Cellular Localization	Cytoplasm, Nucleus
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-HDAC4 antibody	Western Blot (WB), Immunofluorescence (IF), Immunoprecipitation (IP)
Application Notes for anti-HDAC4 antibody	WB: 1:500-1:2000 IF: 1:50-1:200 IP: 1:50-1:100
Related Product Information for anti-HDAC4 antibody	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).
Other Notes	Small volumes of anti-HDAC4 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for HDAC4 purchase	MBS8543964 is an antibody targeting HDAC4. Also known as HDAC4 Rabbit pAb. Reactive in Human, Mouse, Rat. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for HDAC4. It may not necessarily be applicable to this product.

NCBI GI #	153085395
NCBI GeneID	9759
NCBI Accession #	NP_006028.2
UniProt Primary Accession #	P56524
UniProt Related Accession #	P56524
GenBank Nucleotide #	NP_006028.2
NCBI Official Full Name	histone deacetylase 4
NCBI Official Synonym Full Names	histone deacetylase 4
NCBI Official Symbol	HDAC4
NCBI Official Synonym Symbols	HD4; AHO3; BDMR; HDACA; HA6116; HDAC-4; HDAC-A
UniProt Protein Name	Histone deacetylase 4
UniProt Gene Name	HDAC4
UniProt Synonym Gene Names	KIAA0288; HD4
UniProt Entry Name	HDAC4_HUMAN
NCBI Protein Information	histone deacetylase 4
NCBI Summary for HDAC4	Histones play a critical role in transcriptional regulation, cell cycle progression, and developmental events. Histone acetylation/deacetylation alters chromosome structure and affects transcription factor access to DNA. The protein encoded by this gene belongs to class II of the histone deacetylase/acuc/apha family. It possesses histone deacetylase activity and represses transcription when tethered to a promoter. This protein does not bind DNA directly, but through transcription factors MEF2C and MEF2D. It seems to interact in a multiprotein complex with RbAp48 and HDAC3. [provided by RefSeq, Jul 2008]
UniProt Comments for HDAC4	HDAC4: a transcriptional regulator of the histone deacetylase family, subfamily 2. Deacetylates lysine residues on the N-terminal part of the core histones H2A, H2B, H3 AND H4. Plays an important role in transcriptional regulation, cell cycle progression and developmental events. Does not bind DNA directly, but through transcription factors MEF2C and MEF2D. It seems to interact in a multiprotein complex with RbAp48 and HDAC3. Protein type: Nuclear receptor co-regulator; Hydrolase; Deacetylase; EC 3.5.1.98 Chromosomal Location of Human Ortholog: 2q37.3 Cellular Component: nucleoplasm; transcriptional repressor complex; cytoplasm; histone deacetylase complex; actomyosin; neuromuscular junction; Z disc; cytosol; nucleus; A band Molecular Function: potassium ion binding; NAD-dependent histone deacetylase activity (H3-K9 specific); protein binding; transcription activator binding; NAD-dependent histone deacetylase activity (H3-K14 specific); zinc ion binding; sequence-specific DNA binding; histone deacetylase binding; protein deacetylase activity; NAD-dependent histone deacetylase activity (H4-K16 specific); histone deacetylase activity; protein kinase binding; transcription factor binding; transcription corepressor activity Biological Process: cardiac muscle hypertrophy; positive regulation of transcription, DNA-dependent; negative regulation of transcription from RNA polymerase II promoter; response to denervation involved in regulation of muscle adaptation; regulation of gene expression, epigenetic; negative regulation of cell proliferation; positive regulation of cell proliferation; negative regulation of osteoblast differentiation; negative regulation of glycolysis; inflammatory response; skeletal development; response to drug; nervous system development; regulation of skeletal muscle fiber development; B cell activation; transcription, DNA-dependent; negative regulation of transcription factor activity; histone deacetylation; osteoblast development; chromatin remodeling; positive regulation of protein sumoylation; regulation of protein binding; B cell differentiation; positive regulation of transcription from RNA polymerase II promoter; positive regulation of transcription factor activity; negative regulation of transcription, DNA-dependent

Research Articles on HDAC4	**1.** Nuclear resident HDAC4 induces senescence in human fibroblasts (BJ-TERT). HDAC4-induced senescence depends on TP53 activation.
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