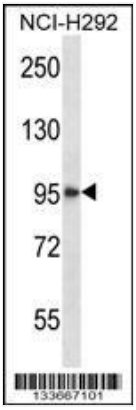
HDAC4 Antibody – Rabbit Polyclonal

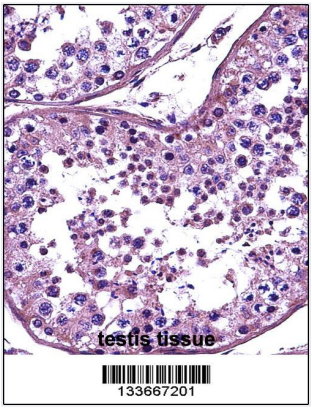
PRODUCT OVERVIEW

Product Name	HDAC4, Polyclonal Antibody
Full Product Name	HDAC4, CT (HDAC4, KIAA0288, Histone deacetylase 4) (Biotin)
Product Gene Name	anti-HDAC4 antibody
Product Synonym Names	HDAC4; KIAA0288; Histone deacetylase 4
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Biotin.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C if to be used immediately within two weeks. For long-term storage, aliquot to avoid repeated freezing and thawing and store at -20 degree C. Aliquots are stable at -20 degree C for 12 months after receipt. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.
Molecular Weight	119,040 Da
Chromosome Location	Chromosome: 2; NC_000002.11 (239969864..240322643, complement). Location: 2q37.3
OMIM	600430
3D Structure	ModBase 3D Structure for P56524
Immunogen	HDAC4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1048-1077 amino acids from the C-terminal region of human HDAC4.
Conjugate	Biotin
Note	Preservative Free
Product Categories/Family for anti-HDAC4 antibody	Antibodies; Enzymes; Deacetylase
Applications Tested/Suitable for anti-HDAC4 antibody	Immunohistochemistry (IHC), ELISA (EIA), Western Blot (WB)
Application Notes for anti-HDAC4 antibody	IHC: 1:10-50 ELISA: 1:1,000 WB: 1:100-500 Applications are based on unconjugated antibody.
Related Product Information for anti-HDAC4 antibody	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.
Product References and Citations for anti-HDAC4 antibody	Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010). Williams, S.R., et al. Am. J. Hum. Genet. 87(2):219-228(2010). Kim, T., et al. Psychiatry Res 178(2):266-269(2010). Pan, L., et al. Cell. Mol. Immunol. 7(3):221-226(2010). Smith, J.A., et al. Virol. J. 7, 237 (2010).

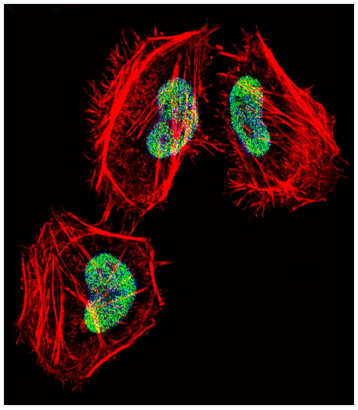
Other Notes	Small volumes of anti-HDAC4 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for HDAC4 purchase	MBS6305913 is an antibody targeting HDAC4. Also known as HDAC4, CT (HDAC4, KIAA0288, Histone deacetylase 4) (Biotin). Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-HDAC4 antibody
HDAC4 Antibody (C-term) western blot analysis in NCI-H292 cell line lysates (35ug/lane).This demonstrates the HDAC4 antibody detected the HDAC4 protein (arrow).



Immunohistochemistry (IHC) of anti-HDAC4 antibody
HDAC4 Antibody (C-term) immunohistochemistry analysis in formalin fixed and paraffin embedded human testis tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of HDAC4 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



Immunofluorescence (IF) of anti-HDAC4 antibody
Fluorescent confocal image of Hela cell stained with HDAC4 Antibody (C-term).Hela cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with HDAC4 primary antibody (1:25, 1 h at 37 degree C). For secondary antibody, Alexa Fluor 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37 degree C).Cytoplasmic actin was counterstained with Alexa Fluor 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37 degree C). Nuclei were counterstained with DAPI (blue) (10 ug/ml, 10 min). HDAC4 immunoreactivity is localized to Nucleus significantly.

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 Secondary Accession #	Q9UND6
UniProt Related Accession #	P56524
GenBank Nucleotide #	NM_006037.3

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; histone deacetylase A
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 calcium signaling is a regulator of nuclear export of HDAC4 and HDAC5.
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