

Rabbit HDAC7 Polyclonal Antibody | anti-HDAC7 antibody

Phospho-HDAC7 (Ser486) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329874	Rabbit	Human, Mouse Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Sheep (86%), Dog (100%), Chicken (100%)	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

PRODUCT SYNONYMS

HDAC7; Polyclonal Antibody; Phospho-HDAC7 (Ser486) Antibody; DKFZP586J0917; FLJ99588; HD 7a; HD7; HD7a; HDAC 7; HDAC 7A; Hdac7; HDAC7_HUMAN; HDAC7A; Histone deacetylase 7; Histone deacetylase 7A; OTTHUMP00000202813; OTTHUMP00000202814; anti-HDAC7 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Sheep (86%), Dog (100%), Chicken (100%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-HDAC7 (Ser486) Antibody detects endogenous levels of HDAC7 only when phosphorylated at Ser486.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-HDAC7 antibody	ELISA (Peptide ELISA), ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human HDAC7 around the phosphorylation site of Ser486.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	May be phosphorylated by CaMK1. Phosphorylated by the PKC kinases PKN1 and PKN2, impairing nuclear import. Phosphorylation at Ser-155 by MARK2, MARK3 and PRKD1 promotes interaction with 14-3-3 proteins and export from the nucleus. Phosphorylation at Ser-155 is a prerequisite for phosphorylation at Ser-181.
Subunit Structure	Interacts with HDAC1, HDAC2, HDAC3, HDAC4, HDAC5, NCOR1, NCOR2, SIN3A, SIN3B, RBBP4, RBBP7, MTA1L1, SAP30 and MBD3. Interacts with the 14-3-3 protein YWHAE, MEF2A, MEF2B and MEF2C (By similarity). Interacts with KAT5 and EDNRA. Interacts withKDM5B. Interacts with ZMYND15 (By similarity). Interacts with PML (isoform PML-4). Interacts with FOXP3. Interacts with RARA.
Similarity	The nuclear export sequence mediates the shuttling between the nucleus and the cytoplasm.Belongs to the histone deacetylase family. HD type 2 subfamily.
Subcellular Location	Nucleus. Cytoplasm. Note: In the nucleus, it associates with distinct subnuclear dot-like structures. Shuttles between the nucleus and the cytoplasm. Treatment with EDN1 results in shuttling from the nucleus to the perinuclear region. The export to cytoplasm depends on the interaction with the 14-3-3 protein YWHAE and is due to its phosphorylation.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IF (Immunofluorescence)

Staining Hela cells(4h of LPS treatment) by IF/ICC. The samples were fixed with PFA and permeabilized in 0.1% Triton X-100,then blocked in 10% serum for 45 minutes at 25 degree C. Samples were then incubated with primary Ab(AF8378 1:200) and mouse anti-beta tubulin Ab(T0023 1:200) for 1 hour at 37 degree C. An AlexaFluor594 conjugated goat anti-rabbit IgG(H+L) Ab(Red) and an AlexaFluor488 conjugated goat anti-mouse IgG(H+L) Ab(Green) were used as the secondary antibody.The nuclear counter stain is DAPI(blue).



WB (Western Blot)

Western blot analysis of HDAC7A (Phospho-Ser486) using HuvEc whole cell lysates.-/+ means absence or presence of N peptide(¼ non-phospho peptide) and P peptide(phospho peptide).

ADDITIONAL INFORMATION

Related Product Information for anti-HDAC7 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 by repressing transcription of myocyte enhancer factors such as MEF2A, MEF2B and MEF2C. During muscle differentiation, it shuttles into the cytoplasm, allowing the expression of myocyte enhancer factors (By similarity). May be involved in Epstein-Barr virus (EBV) latency, possibly by repressing the viral BZLF1 gene. Positively regulates the transcriptional repressor activity of FOXP3. Serves as a corepressor of RARA, causing its deacetylation and inhibition of RARE DNA element binding. In association with RARA, plays a role in the repression of microRNA-10a and thereby in the inflammatory response.

NCBI AND UNIPROT INFORMATION

NCBI GI #	148539870
NCBI GeneID	51564
NCBI Accession #	NP_001091886.1
NCBI GenBank Nucleotide #	NM_001098416.2
UniProt Accession #	Q8WUI4; Q6P1W9; Q6W9G7; Q7Z4K2; Q7Z5I1; Q96K01; Q9BR73; Q9H7L0; Q9NW41; B3KY08; B4DWI0; B4EQQ5
Molecular Weight	102,927 Da
NCBI Official Full Name	histone deacetylase 7 isoform d
NCBI Official Synonym Full Names	histone deacetylase 7
NCBI Official Symbol	HDAC7
NCBI Official Synonym Symbols	HD7A; HDAC7A
NCBI Protein Information	histone deacetylase 7; HD7; histone deacetylase 7A
UniProt Protein Name	Histone deacetylase 7
UniProt Gene Name	HDAC7
UniProt Synonym Gene Names	HDAC7A; HD7; HD7a
UniProt Entry Name	HDAC7_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.