10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-HDAC7 Picoband Antibody

Catalog # ABO12315

Product Information

Application	WB
Primary Accession	Q8WUI4
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Histone deacetylase 7(HDAC7) detection. Tested with WB in Human;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	51564
Other Names	Histone deacetylase 7, HD7, 3.5.1.98, Histone deacetylase 7A, HD7a, HDAC7, HDAC7A
Calculated MW	102927
Application Details	Western blot, 0.1-0.5 □g/ml, Human, Rat
Subcellular Localization	Nucleus. Cytoplasm. 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.
Source	Eukaryota
Protein Name	Histone deacetylase 7
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human HDAC7 (68-103aa QLLHKDKSKRSAVASSVVKQKLAEVILKKQQAALER), different from the related mouse and rat sequences by one amino acid.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also

be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Protein Information

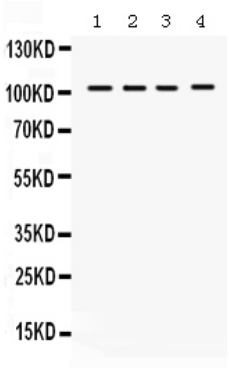
Name	HDAC7
Synonyms	HDAC7A
Function	Responsible for the deacetylation of lysine residues on the N-terminal part of the core histones (H2A, H2B, H3 and H4) (By similarity). Histone deacetylation gives a tag for epigenetic repression and plays an important role in transcriptional regulation, cell cycle progression and developmental events (By similarity). Histone deacetylases act via the formation of large multiprotein complexes (By similarity). Involved in muscle maturation by repressing transcription of myocyte enhancer factors such as MEF2A, MEF2B and MEF2C (By similarity). 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 (PubMed:12239305). Positively regulates the transcriptional repressor activity of FOXP3 (PubMed:17360565). Serves as a corepressor of RARA, causing its deacetylation and inhibition of RARE DNA element binding (PubMed:28167758). In association with RARA, plays a role in the repression of microRNA-10a and thereby in the inflammatory response (PubMed:28167758). Also acetylates non-histone proteins, such as ALKBH5 (PubMed:37369679).
Cellular Location	Nucleus. Cytoplasm Note=In the nucleus, it associates with distinct subnuclear dot-like structures (PubMed:11262386). Shuttles between the nucleus and the cytoplasm (PubMed:16980613). In muscle cells, it shuttles into the cytoplasm during myocyte differentiation (By similarity). The export to cytoplasm depends on the interaction with the 14-3-3 protein YWHAE and is due to its phosphorylation (PubMed:16980613) {ECO:0000250|UniProtKB:Q8C2B3, ECO:0000269|PubMed:11262386, ECO:0000269|PubMed:16980613}

Background

Histone deacetylase 7 is an enzyme that in humans is encoded by the HDAC7 gene. It is mapped to 12q13.1. 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 has sequence homology to members of the histone deacetylase family. This gene is orthologous to mouse HDAC7 gene whose protein promotes repression mediated via the transcriptional corepressor SMRT. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.

Images

Anti- HDAC7 Picoband antibody, ABO12315, Western blottingAll lanes: Anti HDAC7 (ABO12315) at 0.5ug/mlLane 1: Rat Spleen Tissue Lysate at 50ugLane 2: Rat Thymus Tissue Lysate at 50ugLane 3: Human Placenta Tissue Lysate at 50ugLane 4: HELA Whole Cell Lysate at 40ugPredicted bind size: 103KDObserved bind size: 103KD



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.