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Histone deacetylase 7a Polyclonal Antibody

Catalog # AP70331

Product Information

Application	WB, IHC-P, IF, ICC, E
Primary Accession	Q8WUI4
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	102927

Additional Information

Gene ID	51564
Other Names	HDAC7; HDAC7A; Histone deacetylase 7; HD7; Histone deacetylase 7A; HD7a
Dilution	WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/10000. Not yet tested in other applications. IHC-P~~N/A IF~~1:50~200 ICC~~N/A E~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

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).

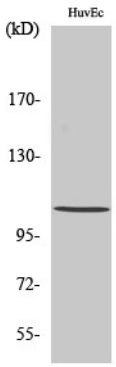
Cellular Location

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

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 (PubMed:17360565).

Images



Western Blot analysis of various cells using Histone deacetylase 7a Polyclonal Antibody

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