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HDAC7 Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10452

Specification

HDAC7 Antibody - Product Information

Application	**WB, IHC, IP**
Primary Accession	Q8C2B3
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**101287**

HDAC7 Antibody - Additional Information

Gene ID 56233

Application & Usage

Western blotting (0.5-4 µg/ml), immunoprecipitation (20-40 µg/ml) and Immunohistochemistry (20-40 µg/ml). However, the optimal conditions should be determined individually. The antibody detects ~105 kDa HDAC7. Mouse small intestine tissue lysate can be use as a positive control. The antibody does not recognize other members of the HDAC family.

Other Names
HDAC7A, histone deacetylase 7A

Target/Specificity
HDAC7

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
100 µg (0.2 mg/ml) affinity purified rabbit anti-HDAC7 polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 30% glycerol, 0.5% BSA, 0.01% thimerosal.

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions
HDAC7 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

HDAC7 Antibody - 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). 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. Positively regulates the transcriptional repressor activity of FOXP3 (By similarity). Serves as a corepressor of RARA, causing its deacetylation and inhibition of RARE DNA element binding (By similarity). In association with RARA, plays a role in the repression of microRNA-10a and thereby in the inflammatory response (By similarity).

Cellular Location
Nucleus. Cytoplasm. Note=In the nucleus, it associates with distinct subnuclear dot-like structures. Shuttles between the nucleus and the cytoplasm. In muscle cells, it shuttles into the cytoplasm during myocyte differentiation. The export to cytoplasm depends on the interaction with the 14-3-3 protein YWHAE and is due to its phosphorylation

Tissue Location
Highly expressed in heart and lung. Expressed at intermediate level in muscle.

HDAC7 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

HDAC7 Antibody - Images

HDAC7 Antibody - Background

Human HDAC7 is composed of 912 amino acid residues. Altho µgh HDAC7 is localized mostly to the cell nucleus, it is also found in the cytoplasm, s µggesting nucleo-cytoplasmic shuttling. The histone deacetylase activity of HDAC7 maps to a carboxy-terminal domain and is dependent on interaction with class I HDACs in the nucleus. HDAC7 catalyzes removal of acetyl-groups from acetyl-lysines of

histones and promotes compaction of chromatin in these regions, leading to the inhibition of gene transcription.