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

HDAC7 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP13647B

Specification

HDAC7 Antibody (C-term) - Product Information

Application	**IHC-P, WB,E**
Primary Accession	Q8WUI4
Other Accession	NP_056216.2, NP_001091886.1
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**102927**
Antigen Region	**846-875**

HDAC7 Antibody (C-term) - Additional Information

Gene ID 51564

Other Names
Histone deacetylase 7, HD7, Histone deacetylase 7A, HD7a, HDAC7, HDAC7A

Target/Specificity
This HDAC7 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 846-875 amino acids from the C-terminal region of human HDAC7.

Dilution
IHC-P~~1:10~50
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
HDAC7 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

HDAC7 Antibody (C-term) - 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).

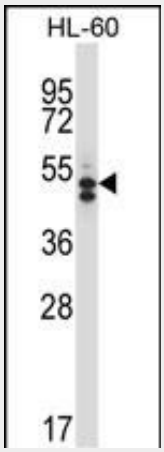
Cellular Location
Nucleus. Cytoplasm Note=In the nucleus, it associates with distinct subnuclear dot-like structures (PubMed:11262386). Shuttles between the nucleus and the cytoplasm (PubMed:16980613). In muscle cells, it shuttles into the cytoplasm during myocyte differentiation (By similarity). The 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}

HDAC7 Antibody (C-term) - Protocols

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

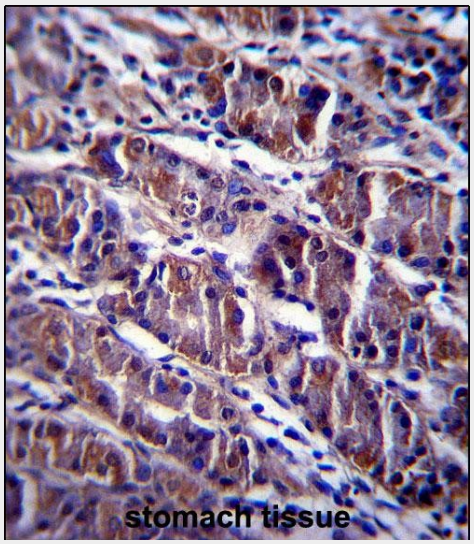
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

HDAC7 Antibody (C-term) - Images



HDAC7 Antibody (C-term) (Cat. #AP13647b) western blot analysis in HL-60 cell line lysates

(35ug/lane).This demonstrates the HDAC7 antibody detected the HDAC7 protein (arrow).



HDAC7 Antibody (C-term) (Cat. #AP13647b)immunohistochemistry analysis in formalin fixed and paraffin embedded human stomach tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of HDAC7 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

HDAC7 Antibody (C-term) - Background

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.

HDAC7 Antibody (C-term) - References

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Hutt, D.M., et al. Nat. Chem. Biol. 6(1):25-33(2010)
Malik, S., et al. Mol. Cell. Biol. 30(2):399-412(2010)
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