

HDAC1 Antibody (C-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1101A

Specification

HDAC1 Antibody (C-term) - Product Information

Application	IF, WB, E
Primary Accession	Q13547
Other Accession	O09106
Reactivity	Human, Mouse
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig
Antigen Region	449-482

HDAC1 Antibody (C-term) - Additional Information

Gene ID 3065

Other Names

Histone deacetylase 1, HD1, HDAC1, RPD3L1

Target/Specificity

This HDAC1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 449-482 amino acids from the C-terminal region of human HDAC1.

Dilution

IF ~ 1:10~50
WB ~ 1:2000

Format

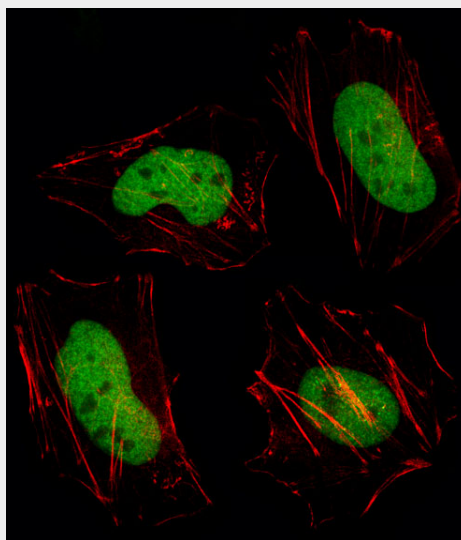
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

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

HDAC1 Antibody (C-term) is for research



Fluorescent image of HeLa cell stained with HDAC1 Antibody (C-term)(Cat#AP1101a/SH040527D). HeLa cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with HDAC1 primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37°C). Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7 units/ml, 1 h at 37°C). HDAC1 immunoreactivity is localized to Nucleus significantly.

use only and not for use in diagnostic or therapeutic procedures.

HDAC1 Antibody (C-term) - Protein Information

Name HDAC1 ([HGNC:4852](#))

Synonyms RPD3L1

Function

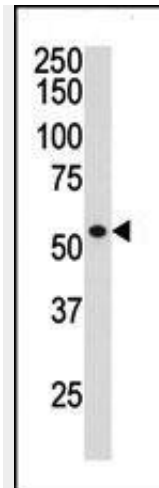
Responsible for the deacetylation of lysine residues on the N-terminal part of the core histones (H2A, H2B, H3 and H4). Histone deacetylation gives a tag for epigenetic repression and plays an important role in transcriptional regulation, cell cycle progression and developmental events. Histone deacetylases act via the formation of large multiprotein complexes. Deacetylates SP proteins, SP1 and SP3, and regulates their function. Component of the BRG1-RB1-HDAC1 complex, which negatively regulates the CREST-mediated transcription in resting neurons. Upon calcium stimulation, HDAC1 is released from the complex and CREBBP is recruited, which facilitates transcriptional activation. Deacetylates TSHZ3 and regulates its transcriptional repressor activity. Deacetylates 'Lys-310' in RELA and thereby inhibits the transcriptional activity of NF-kappa-B. Deacetylates NR1D2 and abrogates the effect of KAT5-mediated relieving of NR1D2 transcription repression activity. Component of a RCOR/GFI/KDM1A/HDAC complex that suppresses, via histone deacetylase (HDAC) recruitment, a number of genes implicated in multilineage blood cell development. Involved in CIART-mediated transcriptional repression of the circadian transcriptional activator: CLOCK-ARNTL/BMAL1 heterodimer. Required for the transcriptional repression of circadian target genes, such as PER1, mediated by the large PER complex or CRY1 through histone deacetylation.

Cellular Location

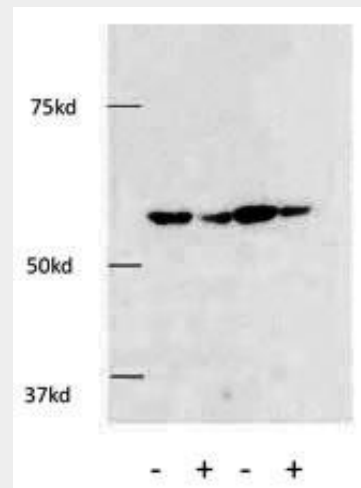
Nucleus.

Tissue Location

Ubiquitous, with higher levels in heart, pancreas and testis, and lower levels in kidney and brain



The anti-HDAC1 Pab (Cat. #AP1101a) is used in Western blot to detect HDAC1 in ZR-75-1 cell lysate.

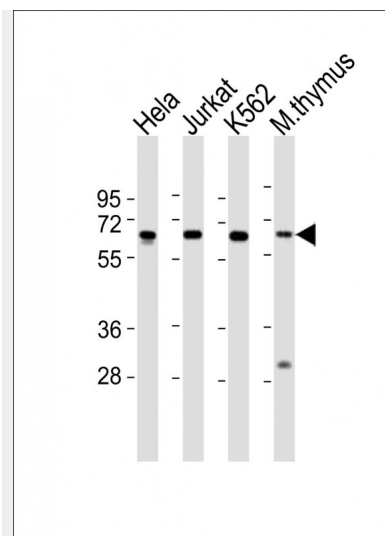


The anti-HDAC1 Pab (Cat.#AP1101a) was used in Western Blot to detect HDAC1 in HEK293 cells. Knockdown of HDAC1 using siRNA against HDAC1 showed a significant decrease of HDAC1 protein using this anti-HDAC1 Pab in HEK293 cells.

HDAC1 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 Cytometry](#)
- [Cell Culture](#)



All lanes : Anti-HDAC1 Antibody (K464) at 1:2000 dilution
Lane 1: HeLa whole cell lysates
Lane 2: Jurkat whole cell lysates
Lane 3: K562 whole cell lysates
Lane 4: mouse thymus lysates
Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution
Predicted band size : 55 kDa
Blocking/Dilution buffer: 5% NFDM/TBST.

HDAC1 Antibody (C-term) - Background

Histone acetylation and deacetylation, catalyzed by multisubunit complexes, play a key role in the regulation of eukaryotic gene expression. HDAC1 belongs to the histone deacetylase/acuc/apha family and is a component of the histone deacetylase complex. It also interacts with retinoblastoma tumor-suppressor protein and this complex is a key element in the control of cell proliferation and differentiation. Together with metastasis-associated protein-2, it deacetylates p53 and modulates its effect on cell growth and apoptosis.

HDAC1 Antibody (C-term) - References

- Di Padova, M., et al., J. Biol. Chem. 278(38):36496-36504 (2003).
Wang, S., et al., Oncogene 22(40):6204-6213 (2003).
Xia, Z.B., et al., Proc. Natl. Acad. Sci. U.S.A. 100(14):8342-8347 (2003).
Rocha, S., et al., Mol. Cell. Biol. 23(13):4713-4727 (2003).
Macaluso, M., et al., Oncogene

22(23):3511-3517 (2003).

HDAC1 Antibody (C-term) - Citations

- [Acetylation of Beclin 1 inhibits autophagosome maturation and promotes tumour growth.](#)