

Rabbit HDAC1 Polyclonal Antibody | anti-HDAC1 antibody

HDAC1 Antibody (N-term)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA290112	Rabbit	Human, mouse, rat	ELISA, Western Blot, Immunofluorescence

PRODUCT SYNONYMS

HDAC1; Polyclonal Antibody; HDAC1 Antibody (N-term); Histone deacetylase 1; HD1; RPD3L1; anti-HDAC1 antibody

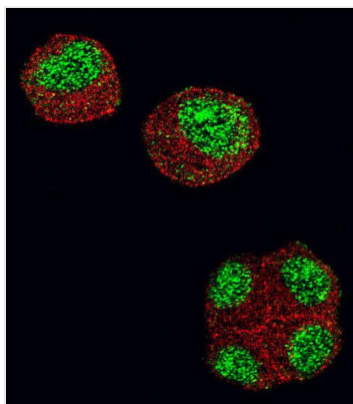
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, mouse, rat
Clonality	Polyclonal
Isotype	Rabbit Ig
Specificity	This HDAC1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human HDAC1.
Purity/Purification	Purified Rabbit Polyclonal Antibody (Pab)
Form/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.
Sequence Positions	1-30
Sequence Length	482
Applicable Applications for anti-HDAC1 antibody	ELISA, WB (Western Blot), IF (Immunofluorescence)
Function	Histone deacetylase that catalyzes the deacetylation of lysine residues on the N-terminal part of the core histones (H2A, H2B, H3 and H4) (PubMed:16762839, PubMed:17704056, PubMed:28497810). Histone deacetylation gives a tag for epigenetic repression and plays an important role in transcriptional regulation, cell cycle progression and developmental events (PubMed:16762839, PubMed:17704056). Histone deacetylases act via the formation of large multiprotein complexes (PubMed:16762839, PubMed:17704056). Also functions as deacetylase for non-histone targets, such as NR1D2, RELA, SP1, SP3 and TSHZ3 (PubMed:12837748, PubMed:16478997, PubMed:17996965, PubMed:19343227). Deacetylates SP proteins, SP1 and SP3, and regulates their function (PubMed:12837748, PubMed:16478997). Component of the BRG1-RB1-HDAC1 complex, which negatively regulates the CREST-mediated transcription in resting neurons (PubMed:19081374). Upon calcium stimulation, HDAC1 is released from the complex and CREBBP is recruited, which facilitates transcriptional activation (PubMed:19081374). Deacetylates TSHZ3 and regulates its transcriptional repressor activity (PubMed:19343227). Deacetylates 'Lys-310' in RELA and thereby inhibits the transcriptional activity of NF-kappa-B (PubMed:17000776). Deacetylates NR1D2 and abrogates the effect of KAT5-mediated relieving of NR1D2 transcription repression activity (PubMed:17996965). 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 (By similarity). Involved in CIART-mediated transcriptional repression of the circadian transcriptional activator: CLOCK-ARNTL/BMAL1 heterodimer (By similarity). Required for the transcriptional repression of circadian target genes, such as PER1, mediated by the large PER complex or CRY1 through histone deacetylation (By similarity). In addition to protein deacetylase activity, also has protein-lysine deacylase activity: acts as a protein decrotonylase by mediating decrotonylation ((2E)-butenoyl) of histones (PubMed:28497810).
Cellular Location	Nucleus.
Tissue Location	Ubiquitous, with higher levels in heart, pancreas and testis, and lower levels in kidney and brain

Preparation and Storage

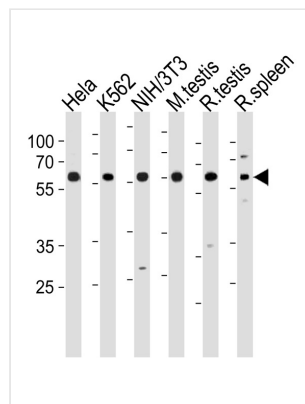
Maintain refrigerated at 2-8 degree C for up to 2 weeks. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.

IMAGES



IF (Immunofluorescence)

Confocal immunofluorescent analysis of HDAC1 Antibody (N-term) with 293 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red).



WB (Western Blot)

HDAC1 Antibody (M1) western blot analysis in HeLa, K562, mouse NIH/3T3 cell line and mouse testis, rat testis and spleen tissue lysates (35ug/lane). This demonstrates the HDAC1 antibody detected the HDAC1 protein (arrow).

ADDITIONAL INFORMATION

Related Product Information for anti-HDAC1 antibody

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/alpha 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.

Product Categories/Family for anti-HDAC1 antibody

[Crown Antibodies](#); [Cardiovascular](#); [Cell Biology](#); [Signal Transduction](#)

References

Meinke PT and Liberator P. Curr Med Chem, 8(2): 211- 235 (2001).
Nakayama T and Takami Y. J Biochem (Tokyo) 129 (4): 491-499 (2001).
Cress, W.D. and Seto, E. J. Cell. Physiol. 184, 1-16 (2000).

NCBI AND UNIPROT INFORMATION

NCBI GI #	13128860
NCBI GeneID	3065
NCBI Accession #	NP_004955.2
NCBI GenBank Nucleotide #	NM_004964.2
UniProt Accession #	Q13547; Q92534
Molecular Weight	55103
NCBI Official Full Name	histone deacetylase 1
NCBI Official Synonym Full Names	histone deacetylase 1
NCBI Official Symbol	HDAC1
NCBI Official Synonym Symbols	HD1; RPD3; GON-10; RPD3L1
NCBI Protein Information	histone deacetylase 1
UniProt Protein Name	Histone deacetylase 1

UniProt Gene Name	HDAC1
UniProt Synonym Gene Names	RPD3L1; HD1
UniProt Entry Name	HDAC1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/hdac1-antibody-western-blot-immunofluorescence-elisa/290112>