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HDAC1 antibody - middle region

Rabbit Polyclonal Antibody
Catalog # AI10051

Product Information

Application	WB, IHC
Primary Accession	Q13547
Other Accession	Q13547, NP_004955, NM_004964
Reactivity	Human, Mouse, Rat, Rabbit, Zebrafish, Pig, Dog, Guinea Pig, Horse, Bovine, Yeast
Predicted	Human, Mouse, Rat, Zebrafish, Pig, Dog, Guinea Pig, Horse, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	55103

Additional Information

Gene ID	3065
Alias Symbol	DKFZp686H12203, GON-10, HD1, RPD3, RPD3L1
Other Names	Histone deacetylase 1, HD1, HDAC1, RPD3L1
Target/Specificity	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.Histone acetylation and deacetylation, catalyzed by multisubunit complexes, play a key role in the regulation of eukaryotic gene expression. The protein encoded by this gene 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. Publication Note: This RefSeq record includes a subset of the publications that are available for this gene. Please see the Entrez Gene record to access additional publications.
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-HDAC1 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at -20°C. Avoid repeat freeze-thaw cycles.
Precautions	HDAC1 antibody - middle region is for research use only and not for use in

diagnostic or therapeutic procedures.

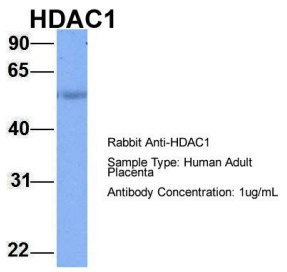
Protein Information

Name	HDAC1 {ECO:0000303|PubMed:10846170, ECO:0000312|HGNC:HGNC:4852}
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). Acts as a component of the histone deacetylase NuRD complex which participates in the remodeling of chromatin (PubMed:16428440, PubMed:28977666). As part of the SIN3B complex is recruited downstream of the constitutively active genes transcriptional start sites through interaction with histones and mitigates histone acetylation and RNA polymerase II progression within transcribed regions contributing to the regulation of transcription (PubMed:21041482). Also functions as a deacetylase for non-histone targets, such as NR1D2, RELA, SP1, SP3, STAT3, ZNF76 and TSHZ3 (PubMed:12837748, PubMed:16285960, PubMed:16337145, 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-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 and delactylase by mediating decrotonylation ((2E)-butenoyl) and delactylation (lactoyl) of histones, respectively (PubMed:28497810, PubMed:35044827).
Cellular Location	Nucleus
Tissue Location	Ubiquitous, with higher levels in heart, pancreas and testis, and lower levels in kidney and brain

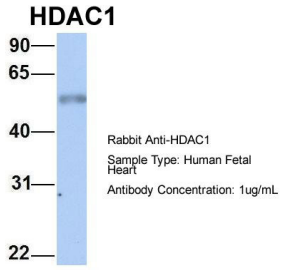
Background

This is a rabbit polyclonal antibody against HDAC1. It was validated on Western Blot using a cell lysate as a positive control. Abgent strives to provide antibodies covering each member of a whole protein family of your interest. We also use our best efforts to provide you antibodies recognize various epitopes of a target protein. For availability of antibody needed for your experiment, please inquire (sales@abgent.com).

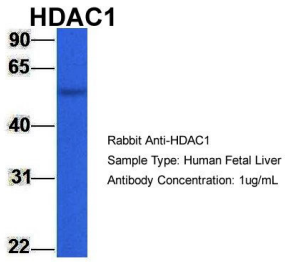
Images



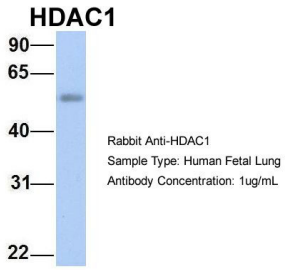
HDAC1 antibody - middle region (AI10051) in Hum. Adult Placenta cells using Western Blot
Host:Rabbit
Target Name:HDAC1
Sample Tissue:Human Adult Placenta
Antibody Dilution: 1.0 µg/ml



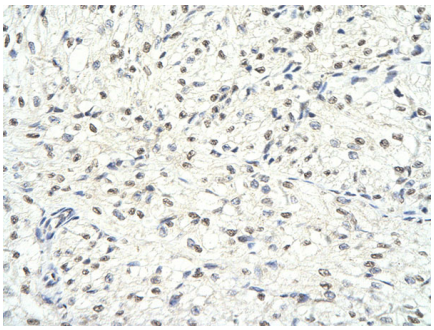
HDAC1 antibody - middle region (AI10051) in Hum. Fetal Heart cells using Western Blot
Host:Rabbit
Target Name:HDAC1
Sample Tissue:Human Fetal Heart
Antibody Dilution: 1.0 µg/ml



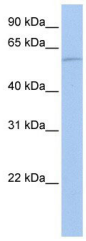
HDAC1 antibody - middle region (AI10051) in Hum. Fetal Liver cells using Western Blot
Host:Rabbit
Target Name:HDAC1
Sample Tissue:Human Fetal Liver
Antibody Dilution: 1.0 µg/ml



HDAC1 antibody - middle region (AI10051) in Hum. Fetal Lung cells using Western Blot
Host:Rabbit
Target Name:HDAC1
Sample Tissue:Human Fetal Lung
Antibody Dilution: 1.0 µg/ml



HDAC1 antibody (AI10051) in Human Heart cells using Immunohistochemistry
Rabbit Anti-HDAC1 antibody
Catalog Number: AI10051
Paraffin Embedded Tissue: Human Heart cell
Cellular Data: Epithelial cells of renal tubule
Antibody Concentration: 4.0-8.0 µg/ml
Magnification: 400X



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