SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-HDAC1 antibody

Catalog Number: SL24448R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	HDAC1
Immunogen:	KLH conjugated synthetic peptide derived from human HDAC1: 341-410/482
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	IHC-P=1:400-800 IHC-F=1:400-800 IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Rat(predicted:Human,Mouse)
Predicted MW.:	53kDa
Subcellular Location:	The nucleus
Background:	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. [provided by RefSeq, Jul 2008] **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.

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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	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. Component a RCOR/GFI/KDM1A/HDAC complex that suppresses, via histone deacetylase (HDAC) recruitment, a number of genes implicated in multilineage blood cell development. **Subcellular Location:** Nucleus. **Tissue Specificity:** Ubiquitous, with higher levels in heart, pancreas and testis, and lower levels in kidney and brain. **Post-translational modifications:** Sumoylated on Lys-444 and Lys-476; which promotes enzymatic activity. Desumoylated by SENP1. Phosphorylation on Ser-421 and Ser-423 promotes enzymatic activity and interactions with NuRD and SIN3 complexes. Phosphorylated by CDK5. Ubiquitinated by CHFR, leading to its degradation by the proteasome. Ubiquitinated by KCTD11, leading to proteasomal degradation. **Similarity:** Belongs to the histone deacetylase family. HD type 1 subfamily. **Database links:** **Entrez Gene:** 3065 Human **Entrez Gene:** 433759 Mouse **Entrez Gene:** 297893 Rat **Entrez Gene:** 404126 Cow Omim: 601241 Human **SwissProt:** Q32PJ8 Cow **SwissProt:** Q13547 Human **SwissProt:** O09106 Mouse **SwissProt:** Q4QQW4 Rat **Unigene:** 88556 Human **Unigene:** 202504 Mouse **Unigene:** 391033 Mouse **Unigene:** 1863 Rat Histone deacetylases (HDACs) are a group of enzymes that, at the level of cellular chromatin, regulate a series of biological effects including chromatin remodeling, transcriptional activation or repression, cell cycle, Cell differentiation and Apoptosis by inducing histone deacetylation, and are particularly associated with the regulation of gene transcriptional expression after cell activation.

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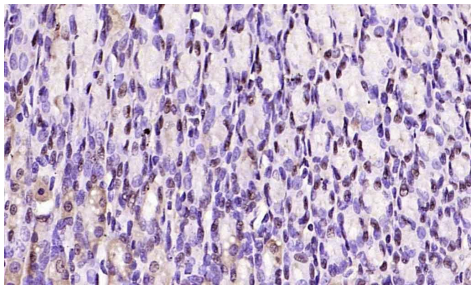
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[VALIDATION IMAGES]



Paraformaldehyde-fixed, paraffin embedded (rat stomach); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (HDAC1 (Nuclear Loading Control)) Polyclonal Antibody, Unconjugated (SL24448R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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