

Rabbit Anti-HDAC1 antibody

SL55093R

Product Name [KO validated anti] HDAC1

Chinese Name 组蛋白去乙酰化酶 1 抗体

Alias HD 1; HD1; HDAC 1; hdac1: histone deacetylase 1; Histone deacetylase 1 (HD1); Histone deacetylase 1; RPD3 (reduced potassium dependency yeast homolog) like 1; RPD3 (reduced potassium dependency); RPD3; RPD3L1; DKFZp686H12203; GON 10; HDAC1_HUMAN.

Research Area Tumour immunology Signal transduction Apoptosis transcriptional regulatory factor

Immunogen Species Rabbit

Clonality Polyclonal

React Species Human Mouse Rat

Applications WB=1:500-2000,IHC-P=1:100-200,IHC-F=1:100-200,ICC/IF=1:100-500,IF=1:50-100,IP=0.5µg antibody for 200µg-400µg extracts of whole cells,ELISA=1:5000-10000 (Paraffin sections need antigen repair)
not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 55kDa

Cellular localization The nucleus

Form Liquid

Concentration 1mg/ml

immunogen Recombinant human HDAC1 : 393-482/482

Lsotype IgG

Purification affinity purified by Protein A

Buffer Solution Human,Mouse,Rat1M TBS(pH7.4) with 1% BSA, Human,Mouse,Rat3% Proclin300 and 50% Glycerol.

Storage Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 Human,Mouse,Rat1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Attention

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

PubMed

[PubMed](#)

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 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 (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, SP3, and regulates their function. Component of the BRG1-RB1-HDAC1 complex, which negatively regulates the CREB-mediated transcription in resting neurons. Upon calcium stimulation, HDAC 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 of a RCOR/GFI/KDM1A/HDAC complex that suppresses, via histone deacetylase (HDAC) recruitment, a number of genes implicated in multilineage blood cell development.

Product Detail

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.

SWISS:

Q13547

Gene ID:

3065

Database links:

[Entrez Gene: 404126](#) Cow

[Entrez Gene: 3065](#) Human

[Entrez Gene: 433759](#) Mouse

[Entrez Gene: 297893](#) Rat

[Omim: 601241](#) Human

[SwissProt: Q32PJ8](#) Cow

[SwissProt: Q13547](#) Human

[SwissProt: O09106](#) Mouse

[SwissProt: Q4QQW4](#) Rat

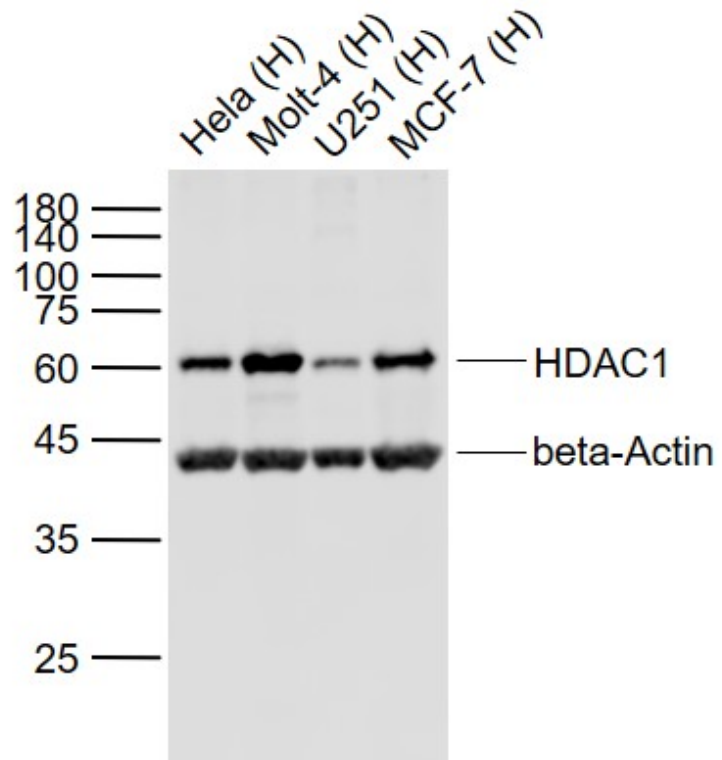
[Unigene: 88556](#) Human

[Unigene: 202504](#) Mouse

[Unigene: 391033](#) Mouse

[Unigene: 1863](#) Rat

**Product
Picture**



Sample:

Lane 1: HeLa (Human) Cell Lysate at 30 ug

Lane 2: Molt-4 (Human) Cell Lysate at 30 ug

Lane 3: U251 (Human) Cell Lysate at 30 ug

Lane 4: MCF-7 (Human) Cell Lysate at 30 ug

Primary:

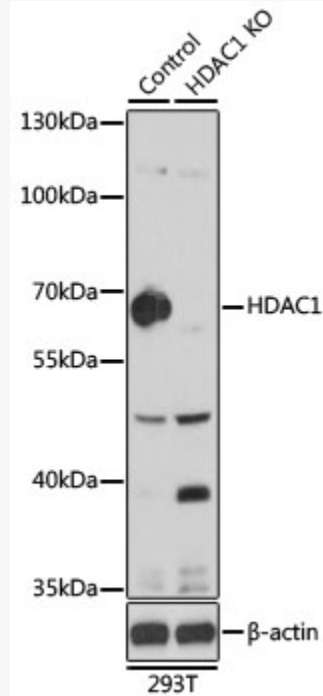
Anti- HDAC1 (SL55093R) at 1/1000 dilution

Anti- beta-Actin (SL0061R) at 1/2000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 62 kD

Observed band size: 60 kD



Sample:

Lane 1: 293T (Human) Cell Lysate at 25 ug

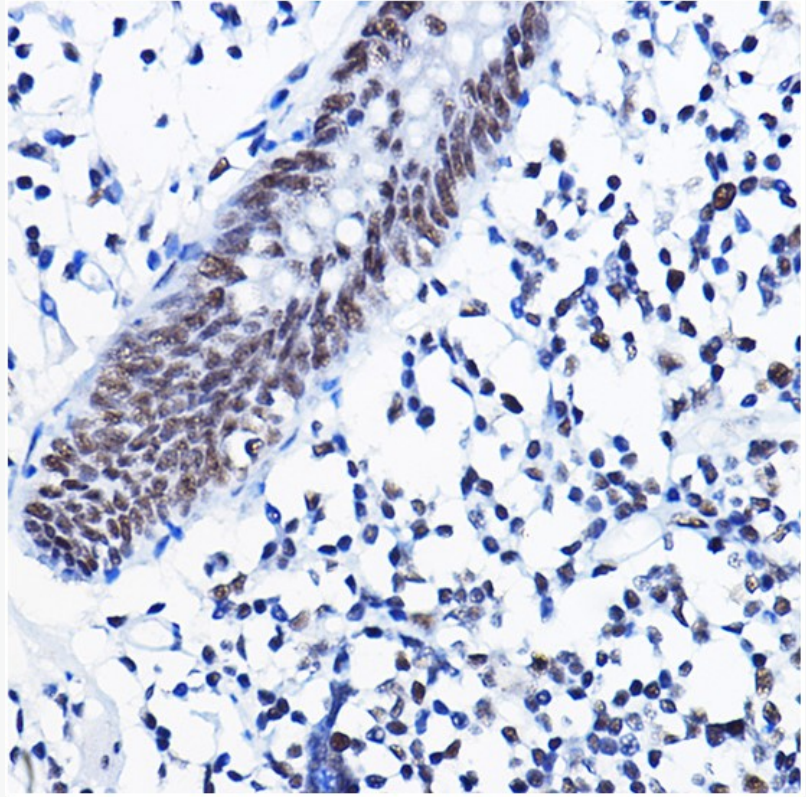
Lane 2: HDAC1 knockout (KO) 293T (Human) Cell Lysate at 25 ug

Primary: Anti-HDAC1 (SL55093R) at 1/1000 dilution

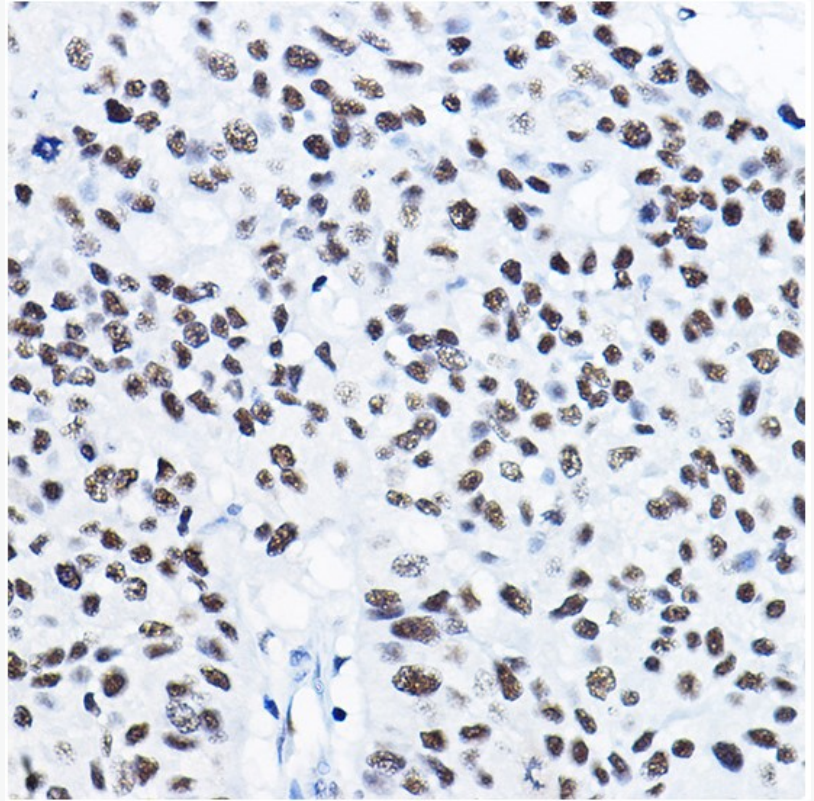
Secondary: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution

Predicted band size: 62 kD

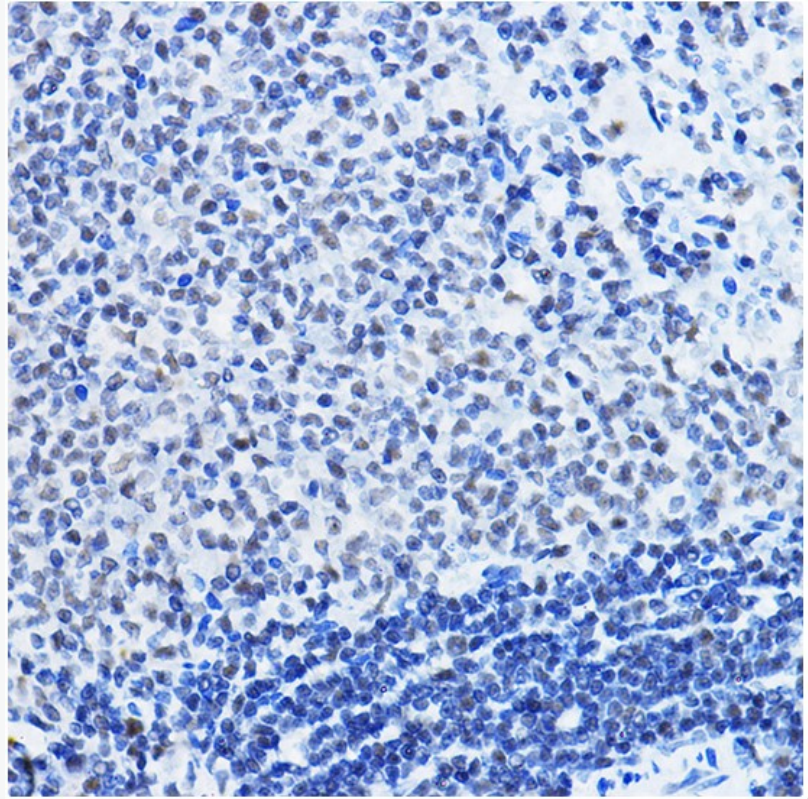
Observed band size: 65 kD



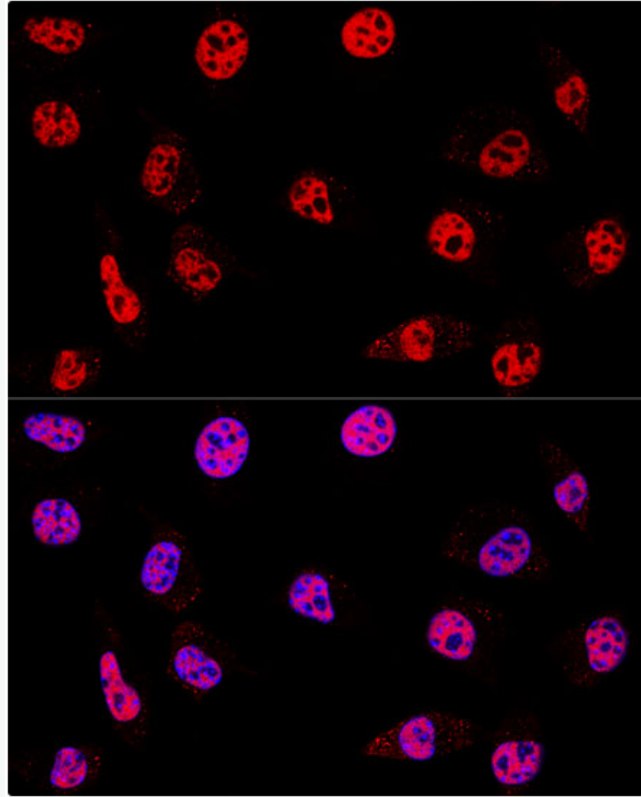
Paraformaldehyde-fixed, paraffin embedded (human colon); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (HDAC1) Polyclonal Antibody, Unconjugated (SL55093R) at 1:50 overnight at 4°C, followed by DAB staining operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



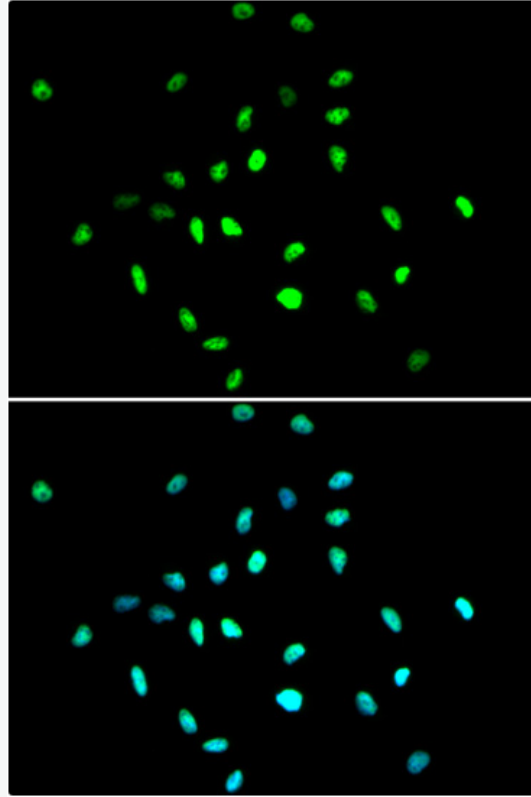
Paraformaldehyde-fixed, paraffin embedded (human lung cancer); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (HDAC1) Polyclonal Antibody, Unconjugated (SL55093R) at 1:50 overnight at 4°C, followed by DAB staining operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (rat spleen); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 15 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (HDAC1) Polyclonal Antibody, Unconjugated (SL55093R) at 1:50 overnight at 4°C, followed by DAB staining operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



L929 cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (KO Validated)HDAC1 polyclonal Antibody, Unconjugated (SL55093R) 1:200, 90 minutes at 37°C followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.



A549 cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (KO Validated)HDAC1 polyclonal Antibody, Unconjugated (SL55093R) 1:100, 90 minutes at 37°C followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.