

## **HDAC1 Polyclonal Antibody**

Catalog No: YT2112

**Reactivity:** Human; Mouse; Rat

**Applications:** WB;IHC;IF;ELISA

Target: HDAC1

Fields: >>Cell cycle;>>Longevity regulating pathway - multiple species;>>Notch

signaling pathway;>>Neutrophil extracellular trap formation;>>Thyroid hormone

signaling pathway;>>Huntington disease;>>Amphetamine

addiction;>>Alcoholism;>>Human papillomavirus infection;>>Epstein-Barr virus infection;>>Pathways in cancer;>>Transcriptional misregulation in cancer;>>Viral

carcinogenesis;>>MicroRNAs in cancer;>>Chronic myeloid leukemia

Gene Name: HDAC1

**Protein Name:** Histone deacetylase 1

Q13547

O09106

Human Gene Id: 3065

**Human Swiss Prot** 

No:

Mouse Gene Id: 433759

**Mouse Swiss Prot** 

No:

**Rat Gene Id:** 297893

Rat Swiss Prot No: Q4QQW4

**Immunogen:** The antiserum was produced against synthesized peptide derived from human

HDAC1. AA range:387-436

**Specificity:** HDAC1 Polyclonal Antibody detects endogenous levels of HDAC1 protein.

**Formulation :** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

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Source: Polyclonal, Rabbit, IgG

**Dilution:** WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:5000.. IF 1:50-200

**Purification:** The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band: 55kD

**Cell Pathway:** Cell\_Cycle\_G1S;Cell\_Cycle\_G2M\_DNA; Protein\_Acetylation

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:** catalytic activity: Hydrolysis of an N(6)-acetyl-lysine residue of a histone to yield a

deacetylated histone.,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.,PTM:Phosphorylation on Ser-421 and Ser-423 promotes enzymatic activity and interactions with NuRD and SIN3 complexes.,PTM:Sumoylated on Lys-444 and Lys-476; which promotes enzymatic activity. Desumoylated by

SENP1.,similarity:Belongs to the histone deacetylase family. Type 1 subfamily.,subunit:Part of the core histone deacetylase (HDAC) complex composed of HDAC1, HDAC2, RBBP4 and RBBP7. The core complex

associates

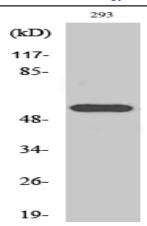
Subcellular Location:

Nucleus.

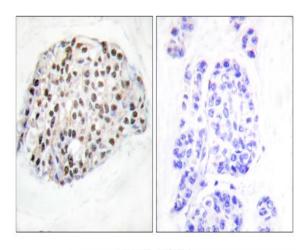
**Expression:** Ubiquitous, with higher levels in heart, pancreas and testis, and lower levels in

kidney and brain.

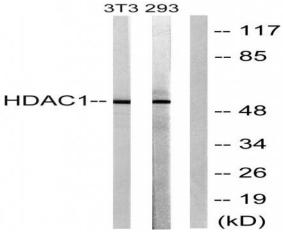
## **Products Images**



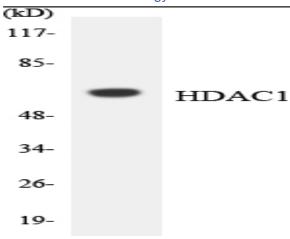
Western Blot analysis of various cells using HDAC1 Polyclonal Antibody diluted at 1:500



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma tissue, using HDAC1 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from NIH/3T3 cells, using HDAC1 Antibody. The lane on the right is blocked with the synthesized peptide.



Western blot analysis of the lysates from COLO205 cells using HDAC1 antibody.