

Product datasheet for **AM31794PU-N**

HDAC1 Mouse Monoclonal Antibody [Clone ID: 3E1]

Product data:

Product Type:	Primary Antibodies
Clone Name:	3E1
Applications:	ELISA, IF, IHC, WB
Recommended Dilution:	ELISA. Immunofluorescence: 10 µg/ml. Immunohistochemistry on Paraffin Sections: 5 µg/ml. Western Blot: 1/500 - 1/1000.
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	HDAC1 antibody was raised against hDAC1 (AAH00301, 1 a.a. ~ 483 a.a) full length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Specificity:	This antibody reacts to HDAC1.
Formulation:	PBS, pH 7.4 State: Purified State: Liquid purified Ig fraction
Concentration:	lot specific
Purification:	Affinity chromatography on Protein A
Conjugation:	Unconjugated
Storage:	Store the antibody at -20°C to -80°C. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	histone deacetylase 1
Database Link:	Entrez Gene 297893 Rat Entrez Gene 433759 Mouse Entrez Gene 3065 Human Q13547



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Background:

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. 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.

Synonyms:

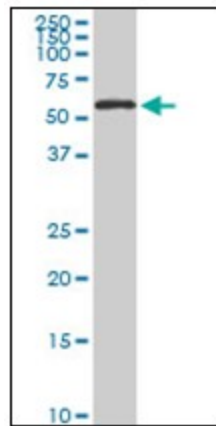
Histone deacetylase 1, HD1, RPD3L1

Protein Families:

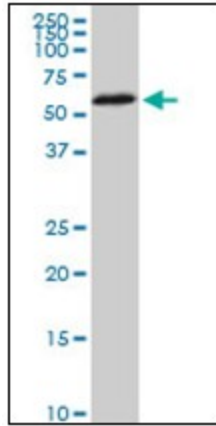
Adult stem cells, Druggable Genome, Stem cell - Pluripotency, Stem cell relevant signaling - DSL/Notch pathway, Transcription Factors

Protein Pathways:

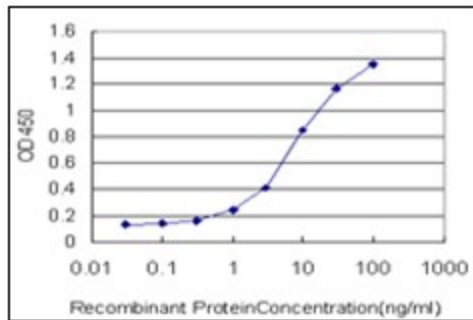
Cell cycle, Chronic myeloid leukemia, Huntington's disease, Notch signaling pathway, Pathways in cancer

Product images:

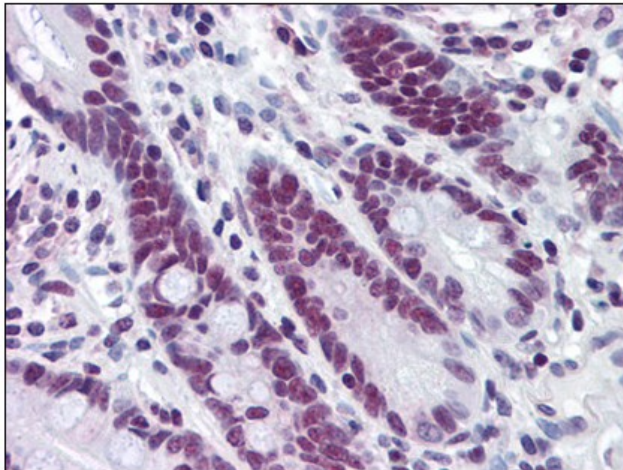
Western Blot analysis of HDAC1 expression in HeLa nuclear extract.



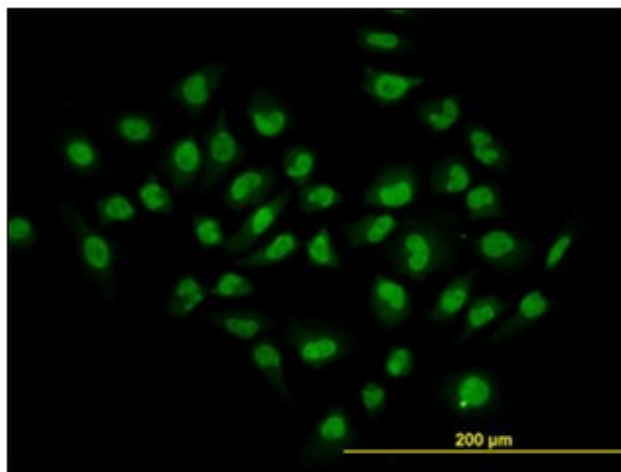
Western Blot analysis of HDAC1 expression in NIH/3T3 cell lysate.



Detection limit for recombinant GST tagged HDAC1 is approximately 0.1ng/ml as a capture antibody.



Human Small Intestine: Formalin-Fixed, Paraffin-Embedded (FFPE)



Immunofluorescence of monoclonal antibody to HDAC1 on HeLa cell. [antibody concentration 10 ug/ml]