

HDAC1 polyclonal antibody - Premium

Purified rabbit polyclonal Antibody

Catalog # ADN10294

Specification

HDAC1 polyclonal antibody - Premium - Product Information

Application	CHIP, E, WB, IF
Primary Accession	Q13547
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	55103

HDAC1 polyclonal antibody - Premium - Additional Information

Gene ID 3065

Other Names

Histone deacetylase 1, HD1, 3.5.1.98, HDAC1, RPD3L1

Target/Specificity

HDAC1

Precautions

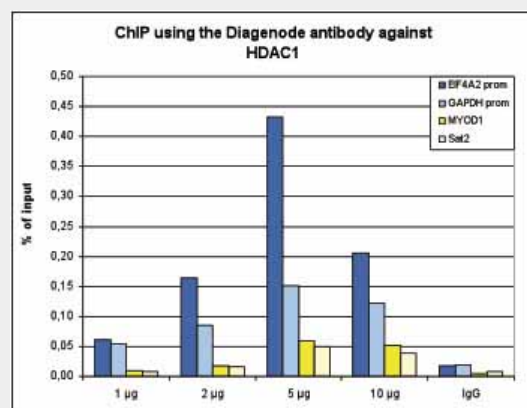
HDAC1 polyclonal antibody - Premium is for research use only and not for use in diagnostic or therapeutic procedures.

HDAC1 polyclonal antibody - Premium - Protein Information

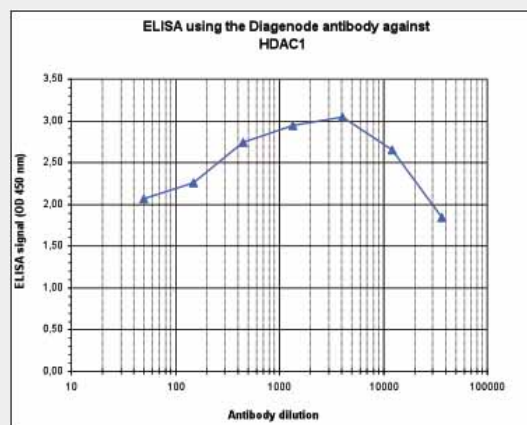
Name HDAC1 ([HGNC:4852](#))

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. Deacetylates SP proteins, SP1 and SP3, and regulates their function. Component of the BRG1-RB1-HDAC1 complex, which negatively regulates the CREST-mediated



ChIP was performed with the Diagenode antibody against HDAC1 (Cat. No. ADN10294) on sheared chromatin from 4,000,000 HeLa cells. An antibody titration consisting of 1, 2, 5 and 10 µg per ChIP experiment was analysed. IgG (2 µg/IP) was used as negative IP control. QPCR was performed with primers specific for the EIF4A2 and GAPDH promoters, used as positive controls, and for the MYOD1 gene and Sat2 satellite repeat, used as negative controls. Figure 1 shows the recovery, expressed as a % of input (the relative amount of immunoprecipitated DNA compared to input DNA after qPCR analysis).



To determine the titer of the antibody, an ELISA was performed using a serial dilution of Diagenode antibody directed against HDAC1 (Cat. No. ADN10294), crude serum and flow

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. Deacetylates NR1D2 and abrogates the effect of KAT5-mediated relieving of NR1D2 transcription repression activity. 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. Involved in CIART-mediated transcriptional repression of the circadian transcriptional activator: CLOCK-ARNTL/BMAL1 heterodimer. Required for the transcriptional repression of circadian target genes, such as PER1, mediated by the large PER complex or CRY1 through histone deacetylation.

Cellular Location
Nucleus.

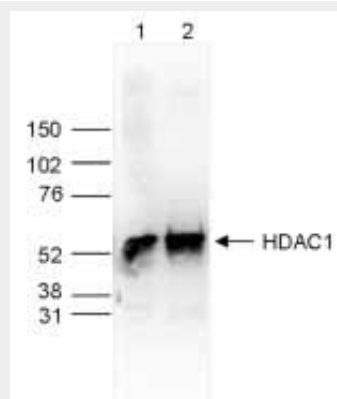
Tissue Location
Ubiquitous, with higher levels in heart, pancreas and testis, and lower levels in kidney and brain

HDAC1 polyclonal antibody - Premium - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

through. The plates were coated with the peptide used for immunization of the rabbit. By plotting the absorbance against the antibody dilution (Figure 2), the titer of the antibody was estimated to be 1:75,000.



Whole cell extracts (25 µg, lane 1) and nuclear extracts (25 µg, lane 2) from HeLa cells were analysed by Western blot using the Diagenode antibody against HDAC1 (Cat. No. ADN10294) diluted 1:1,000 in TBS-Tween containing 5% skimmed milk. The position of the protein of interest is indicated on the right (expected size: 55 kDa); the marker (in kDa) is shown on the left.

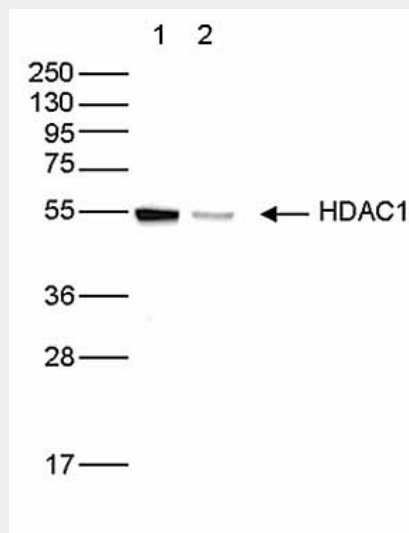
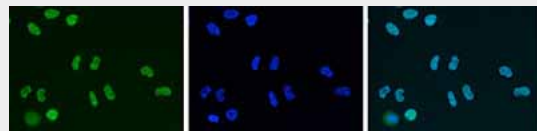


Figure 5. Whole cell extracts (50 µg) from HeLa cells transfected with HDAC1 siRNA (lane 2) and from an untransfected control (lane 1) were analysed by Western blot using the Diagenode antibody against HDAC1 (Cat. No. ADN10294) diluted 1:1,000 in TBS-Tween containing 5% skimmed milk. The position of the protein of interest is indicated on the right (expected size: 55 kDa); the marker (in kDa) is shown on the left.



HeLa cells were stained with the Diagenode antibody against HDAC1 (Cat. No. ADN10294) and with DAPI. Cells were fixed with 4% formaldehyde for 10' and blocked with PBS/TX-100 containing 5% normal goat serum and 1% BSA. The cells were immunofluorescently labelled with the HDAC1 antibody (left) diluted 1:500 in blocking solution followed by an anti-rabbit antibody conjugated to Alexa488. The middle panel shows staining of the nuclei with DAPI. A merge of the two stainings is shown on the right.