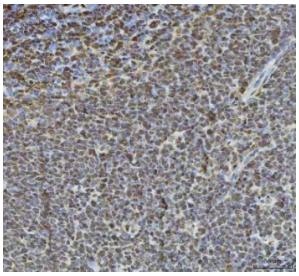
Histone Deacetylase 1 Antibody / Chromatin Deacetylase Antibody (RQ7277)

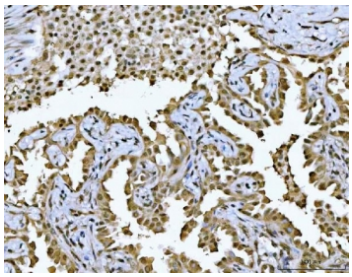
Catalog No.	Formulation	Size
RQ7277	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

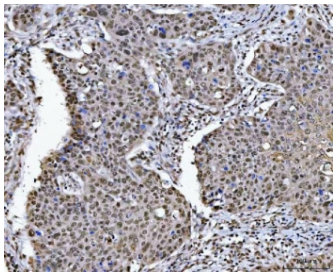
Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q13547
Localization	Nuclear
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Flow cytometry: 1-3ug/million cells
Limitations	This Histone Deacetylase 1 Antibody / Chromatin Deacetylase Antibody is available for research use only.



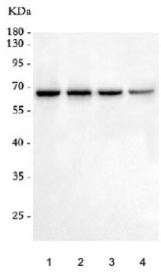
Histone Deacetylase 1 Antibody in Human Tonsil IHC. Immunohistochemistry testing of Histone Deacetylase 1 Antibody in FFPE human tonsil tissue. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 8 EDTA for 20 min followed by cooling prior to staining. Nuclear immunoreactivity is observed throughout the lymphoid tissue, consistent with the chromatin-associated function of HDAC1.



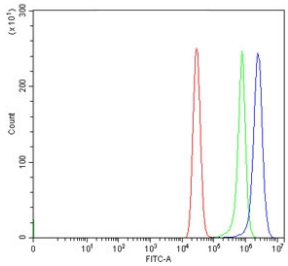
Histone Deacetylase 1 Antibody in Human Lung Cancer IHC. Immunohistochemistry testing of Histone Deacetylase 1 Antibody in FFPE human lung cancer tissue. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 8 EDTA for 20 min followed by cooling prior to staining. Nuclear HDAC1 immunoreactivity is observed in tumor cells, consistent with its role in chromatin deacetylation and transcriptional regulation.



Histone Deacetylase 1 Antibody in Human Esophageal Squamous Carcinoma IHC. Immunohistochemistry testing of Histone Deacetylase 1 Antibody in FFPE human esophageal squamous carcinoma tissue. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 8 EDTA for 20 min followed by cooling prior to staining. Prominent nuclear immunoreactivity is observed in tumor cells, consistent with the nuclear localization of HDAC1.



Histone Deacetylase 1 Antibody in Human Leukemia and Glioma Cells WB. Western blot testing of Histone Deacetylase 1 Antibody in human 1) MOLT-4 T-cell leukemia, 2) Jurkat T-cell leukemia, 3) HL-60 promyelocytic leukemia and 4) U-251 glioma cell lysates. A prominent band is observed at approximately 55-60 kDa across the tested samples, consistent with the predicted molecular weight of HDAC1. This Chromatin Deacetylase Antibody demonstrates detection of endogenous HDAC1 across multiple human cell lines.



Histone Deacetylase 1 Antibody in Human MCF-7 Breast Cancer Cells FACS. Flow cytometry testing of human MCF-7 breast cancer cells with Histone Deacetylase 1 Antibody at 1 ug/million cells following blocking with goat serum. Cells alone are shown in red, the isotype control in green and HDAC1 antibody staining in blue. A clear fluorescence shift is observed relative to both controls, demonstrating detection of the chromatin deacetylase HDAC1 in the tested cells.

Description

Histone Deacetylase 1 Antibody / Chromatin Deacetylase Antibody recognizes HDAC1, a nuclear enzyme belonging to the Class I family of histone deacetylases. HDAC1 removes acetyl groups from lysine residues on histones and other protein substrates and thereby contributes to regulation of chromatin structure and gene expression. Histone deacetylation is generally associated with increased chromatin compaction and reduced accessibility of DNA to transcriptional machinery.

HDAC1 commonly functions within multiprotein transcriptional regulatory complexes rather than as an isolated enzyme. Together with the closely related HDAC2 protein, it is incorporated into complexes such as Sin3, NuRD and CoREST. Recruitment of these complexes to specific genomic regions provides a mechanism for directing deacetylase activity to chromatin and coordinating histone modification with transcriptional repression and chromatin remodeling.

Histone deacetylase 1 participates in diverse cellular processes including proliferation, differentiation, cell-cycle regulation and DNA damage responses. HDAC1 also interacts functionally with regulatory proteins involved in growth and tumor suppression, and altered histone deacetylase activity has been studied extensively in cancer and other diseases associated with abnormal epigenetic regulation. These functions make HDAC1 an important target for research into chromatin organization, transcription and epigenetic control.

This rabbit polyclonal antibody was generated against the human HDAC1 peptide DDESYEAIFKPVMSKVMEMFQ and is antigen affinity purified. It recognizes human HDAC1. NSJ Bioreagents provides this Histone Deacetylase 1 Antibody for research into histone deacetylation, chromatin remodeling and transcriptional regulation. A Chromatin Deacetylase Antibody can support studies examining the relationship between HDAC1 activity and epigenetic control of gene expression.

For additional information on HDAC1 biology and a protein microarray-validated monoclonal reagent, visit our HDAC1 Antibody PCRP-HDAC1-1B7 / Class I HDAC Antibody page.

Application Notes

Optimal dilution of the Histone Deacetylase 1 Antibody / Chromatin Deacetylase Antibody should be determined by the researcher.

Immunogen

Amino acids DDESYEAIFKPVMSKVMEMFQ were used as the immunogen for the Histone deacetylase 1 antibody.

Storage

After reconstitution, the Histone deacetylase 1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Histone deacetylase 1 antibody, HDAC1 antibody, HD1 antibody, Histone deacetylase 1A antibody, RPD3L1 antibody

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