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KD-Validated Anti-Histone Deacetylase 2 Mouse Monoclonal Antibody

Mouse monoclonal antibody
Catalog # AGI1098

Specification

KD-Validated Anti-Histone Deacetylase 2 Mouse Monoclonal Antibody - Product Information

Application	**WB**
Primary Accession	Q92769
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse IgG1**
Calculated MW	**Predicted, 55 kDa, observed, 60 kDa KDa**
Gene Name	**HDAC2**
Aliases	**HDAC2; Histone Deacetylase 2; KDAC2; RPD3; YAF1; Protein Deacylase HDAC2; EC 3.5.1.98; HD2; Transcriptional Regulator Homolog RPD3; YY1-Associated Factor 1; EC 3.5.1.-**
Immunogen	**Recombinant protein of human Histone Deacetylase 2**

KD-Validated Anti-Histone Deacetylase 2 Mouse Monoclonal Antibody - Additional Information

Gene ID	**3066**

Other Names
Histone deacetylase 2, HD2, 3.5.1.98, Protein deacylase HDAC2, 3.5.1.-, HDAC2 {ECO:0000303|PubMed:10545197, ECO:0000312|HGNC:HGNC:4853}

KD-Validated Anti-Histone Deacetylase 2 Mouse Monoclonal Antibody - Protein Information

Name HDAC2 {ECO:0000303|PubMed:10545197, ECO:0000312|HGNC:HGNC:4853}

Function
Histone deacetylase that catalyzes the deacetylation of lysine residues on the N-terminal part of the core histones (H2A, H2B, H3 and H4) (PubMed:28497810). Histone deacetylation gives a tag for epigenetic repression and plays an important role in transcriptional regulation, cell cycle progression and developmental events (By similarity). Histone deacetylases act via the formation of large multiprotein complexes (By similarity). Forms transcriptional repressor complexes by associating with MAD, SIN3, YY1 and N-COR (PubMed:12724404). 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 (By similarity). Acts as a component of the histone deacetylase NuRD complex which participates in the remodeling of chromatin (PubMed:<a href="http://www.uniprot.org/citations/16428440"

target="_blank">16428440, PubMed:28977666). Component of the SIN3B complex that represses transcription and counteracts the histone acetyltransferase activity of EP300 through the recognition H3K27ac marks by PHF12 and the activity of the histone deacetylase HDAC2 (PubMed:37137925). Also deacetylates non-histone targets: deacetylates TSHZ3, thereby regulating its transcriptional repressor activity (PubMed:19343227). May be involved in the transcriptional repression of circadian target genes, such as PER1, mediated by CRY1 through histone deacetylation (By similarity). Involved in MTA1-mediated transcriptional corepression of TFF1 and CDKN1A (PubMed:21965678). In addition to protein deacetylase activity, also acts as a protein-lysine deacylase by recognizing other acyl groups: catalyzes removal of (2E)-butenoyl (crotonyl), lactoyl (lactyl) and 2-hydroxyisobutanoyl (2-hydroxyisobutyryl) acyl groups from lysine residues, leading to protein decrotonylation, delactylation and de-2-hydroxyisobutyrylation, respectively (PubMed:28497810, PubMed:29192674, PubMed:35044827).

Cellular Location
Nucleus. Cytoplasm

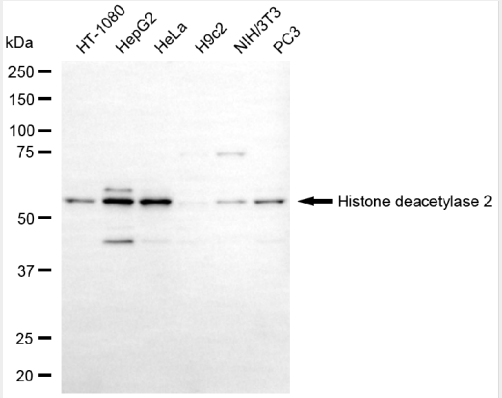
Tissue Location
Widely expressed; lower levels in brain and lung.

KD-Validated Anti-Histone Deacetylase 2 Mouse Monoclonal Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KD-Validated Anti-Histone Deacetylase 2 Mouse Monoclonal Antibody - Images



Western blotting analysis using anti-histone deacetylase 2 antibody (Cat#AGI1098). Total cell

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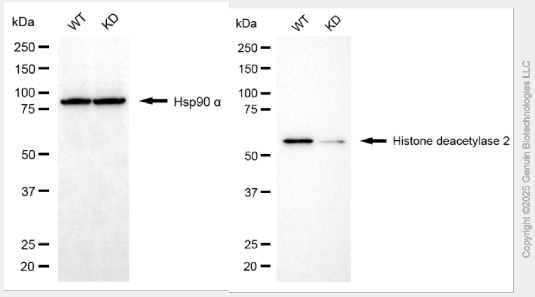
lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-histone deacetylase 2 antibody (Cat#AGI1098, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.



Western blotting analysis using anti-histone deacetylase 2 antibody (Cat#AGI1098). Histone deacetylase 2 expression in wild type (WT) and histone deacetylase 2 (HDAC2) knockdown (KD) HSHC cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-histone deacetylase 2 antibody (Cat#AGI1098, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.