10320 Camino Santa Fe, Suite G
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Anti-HDAC2 Antibody
Catalog # ABO10673

Specification

Anti-HDAC2 Antibody - Product Information

Application	**WB**
Primary Accession	Q92769
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Histone deacetylase 2(HDAC2) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-HDAC2 Antibody - Additional Information

Gene ID 3066

Other Names
Histone deacetylase 2, HD2, 3.5.1.98, HDAC2

Calculated MW
55364 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse

Subcellular Localization
Nucleus . Cytoplasm .

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

Protein Name
Histone deacetylase 2(HD2)

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the C-terminus of human HDAC2(464-478aa EDKSKDNSGEKTDTK), identical to the related rat sequence, and different from the related mouse sequence by one amino acid.

Purification

Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Sequence Similarities
Belongs to the histone deacetylase family. HD type 1 subfamily.

Anti-HDAC2 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: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.

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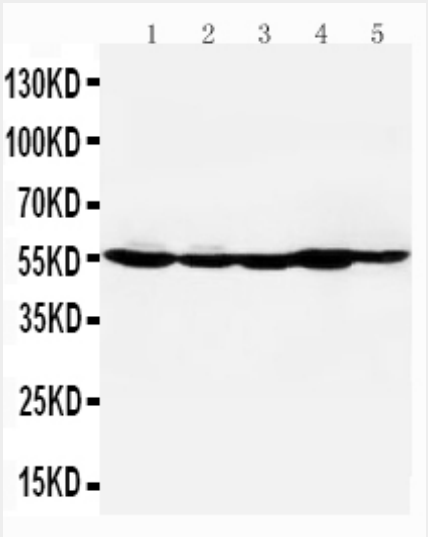
Anti-HDAC2 Antibody - Protocols

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

Anti-HDAC2 Antibody - Images



Anti-HDAC2 antibody, ABO10673, Western blottingLane 1: MM453 Cell LysateLane 2: MCF-7 Cell LysateLane 3: HELA Cell LysateLane 4: SMMC Cell LysateLane 5: COLO320 Cell Lysate

Anti-HDAC2 Antibody - Background

Histone deacetylase 2 is an enzyme that in humans is encoded by the HDAC2 gene. This gene product belongs to the histone deacetylase family. Histone deacetylases act via the formation of large multiprotein complexes and are responsible for the deacetylation of lysine residues on the N-terminal region of the core histones(H2A, H2B, H3 and H4). This protein also forms transcriptional repressor complexes by associating with many different proteins, including YY1, a mammalian zinc-finger transcription factor. Thus it plays an important role in transcriptional regulation, cell cycle progression and developmental events. Betz et al.(1998) performed PCR using HDAC2-specific primers to screen a somatic cell hybrid mapping panel. They mapped the HDAC2 gene to human chromosome 6q21, a region of the genome altered in some cancers, including retinoblastoma.