

**Anti-HDAC2 (RABBIT) Antibody**  
**HDAC2 (C-terminus) Antibody**  
**Catalog # ASR5672****Specification**

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**Anti-HDAC2 (RABBIT) Antibody - Product Information**

Host	Rabbit
Conjugate	Unconjugated
Target Species	Human
Reactivity	Rat, Human, Mouse
Clonality	Polyclonal
Application	WB, IHC, E, I, LCI
Application Note	Anti-HDAC2 antibody is tested for ELISA and Western Blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately ~59 kDa corresponding to the appropriate cell lysate or extract.
Physical State	Liquid (sterile filtered)
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Immunogen	HDAC2 affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to the C-terminus region of human HDAC2.
Stabilizer	30% Glycerol

**Anti-HDAC2 (RABBIT) Antibody - Additional Information****Gene ID** 3066**Other Names**  
3066**Purity**

Anti-HDAC2 was affinity purified from monospecific antiserum by immunoaffinity chromatography. This antibody is specific towards HDAC2. A BLAST analysis was used to suggest cross-reactivity with Human, Mouse, Rat, and Primate based on 100% sequence homology. Cross-reactivity with HDAC2 from other sources has not been determined.

**Storage Condition**

Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

**Precautions Note**

This product is for research use only and is not intended for therapeutic or diagnostic applications.

## Anti-HDAC2 (RABBIT) 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:<a href="http://www.uniprot.org/citations/28497810" target="\_blank">28497810</a>). 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:<a href="http://www.uniprot.org/citations/12724404" target="\_blank">12724404</a>). 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</a>, PubMed:<a href="http://www.uniprot.org/citations/28977666" target="\_blank">28977666</a>). 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:<a href="http://www.uniprot.org/citations/37137925" target="\_blank">37137925</a>). Also deacetylates non-histone targets: deacetylates TSHZ3, thereby regulating its transcriptional repressor activity (PubMed:<a href="http://www.uniprot.org/citations/19343227" target="\_blank">19343227</a>). 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:<a href="http://www.uniprot.org/citations/21965678" target="\_blank">21965678</a>). 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:<a href="http://www.uniprot.org/citations/28497810" target="\_blank">28497810</a>, PubMed:<a href="http://www.uniprot.org/citations/29192674" target="\_blank">29192674</a>, PubMed:<a href="http://www.uniprot.org/citations/35044827" target="\_blank">35044827</a>).

### Cellular Location

Nucleus. Cytoplasm

### Tissue Location

Widely expressed; lower levels in brain and lung.

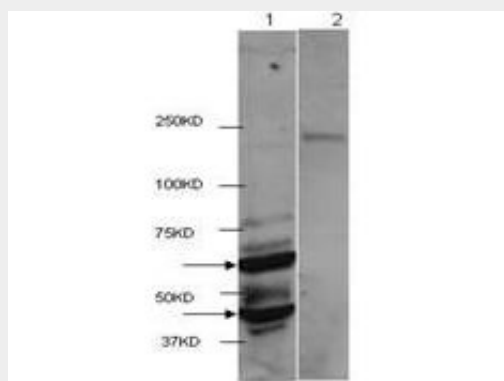
## Anti-HDAC2 (RABBIT) Antibody - Protocols

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

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

- [Cell Culture](#)

### Anti-HDAC2 (RABBIT) Antibody - Images



Western Blot of Rabbit anti-HDAC2 antibody. Lane 1: mouse brain extract. Lane 2: mouse brain extract blocked with peptide. Load: 4  $\mu$ g per lane. Primary antibody: HDAC2 antibody at 1  $\mu$ g/mL for overnight at 4°C. Secondary antibody: IRDye800™ rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 59 kDa for HDAC2. Other band(s): ~45kDa.

### Anti-HDAC2 (RABBIT) Antibody - Background

Histone deacetylase 2 (HDAC2), or transcriptional regulator homolog RPD3 L1, is highly homologous to the yeast transcription factor RPD3 (reduced potassium dependency 3) gene. As in yeast, human HDAC2 is likely to be involved in regulating chromatin structure during transcription. It has been implicated to associate with YY1, a mammalian zinc-finger transcription factor, which negatively regulates transcription by tethering RPD3 to DNA as a cofactor. This process is highly conserved from yeast to human. Anti-HDAC2 antibodies are ideal for researchers interested in Breast Cancer, Cancer, Chromatin Research, Epigenetics, Histone Deacetylases, and Stem Cell Markers research.