10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# Hdac3 antibody - C-terminal region

Rabbit Polyclonal Antibody
Catalog # AI12154

## Product Information

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| **Application** | WB |
| **Primary Accession** | Q6P6W3 |
| **Other Accession** | NM_053448, NP_445900 |
| **Reactivity** | Human, Mouse, Rat, Rabbit, Zebrafish, Pig, Dog, Guinea Pig, Horse, Bovine, Yeast |
| **Predicted** | Human, Mouse, Rat, Zebrafish, Pig, Dog |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 48821 |

## Additional Information

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| **Gene ID** | 84578 |
| **Alias Symbol** | Hdac3 |
| **Other Names** | Histone deacetylase 3, HD3, 3.5.1.98, Hdac3 |
| **Format** | Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose. |
| **Reconstitution & Storage** | Add 50 ul of distilled water. Final anti-Hdac3 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles. |
| **Precautions** | Hdac3 antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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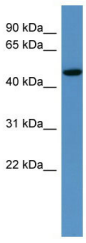
| **Name** | Hdac3 |
| **Function** | Histone deacetylase that catalyzes the deacetylation of lysine residues on the N-terminal part of the core histones (H2A, H2B, H3 and H4), and some other non-histone substrates. Histone deacetylation gives a tag for epigenetic repression and plays an important role in transcriptional regulation, cell cycle progression and developmental events. Histone deacetylases act via the formation of large multiprotein complexes, such as N-Cor repressor complex, which activate the histone deacetylase activity. Participates in the BCL6 transcriptional repressor activity by deacetylating the H3 'Lys-27' (H3K27) on enhancer elements, antagonizing EP300 acetyltransferase activity and repressing proximal gene expression (By similarity). Acts as a molecular |

chaperone for shuttling phosphorylated NR2C1 to PML bodies for sumoylation (By similarity). Contributes, together with XBP1 isoform 1, to the activation of NFE2L2-mediated HMOX1 transcription factor gene expression in a PI(3)K/mTORC2/Akt-dependent signaling pathway leading to endothelial cell (EC) survival under disturbed flow/oxidative stress (By similarity). Regulates both the transcriptional activation and repression phases of the circadian clock in a deacetylase activity-independent manner. During the activation phase, promotes the accumulation of ubiquitinated BMAL1 at the E-boxes and during the repression phase, blocks FBXL3-mediated CRY1/2 ubiquitination and promotes the interaction of CRY1 and BMAL1. The NCOR1-HDAC3 complex regulates the circadian expression of the core clock gene BMAL1 and the genes involved in lipid metabolism in the liver (By similarity). Also functions as a deacetylase for non-histone targets, such as KAT5, MEF2D, MAPK14, RARA and STAT3. Serves as a corepressor of RARA, mediating its deacetylation and repression, leading to inhibition of RARE DNA element binding. In association with RARA, plays a role in the repression of microRNA-10a and thereby in the inflammatory response. 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 (By similarity). Catalyzes decrotonylation of MAPRE1/EB1 (By similarity). Mediates delactylation NBN/NBS1, thereby inhibiting DNA double-strand breaks (DSBs) via homologous recombination (HR) (By similarity).

**Cellular Location**

Nucleus {ECO:0000250|UniProtKB:O15379}. Chromosome {ECO:0000250|UniProtKB:O15379}. Cytoplasm {ECO:0000250|UniProtKB:O15379}. Cytoplasm, cytosol {ECO:0000250|UniProtKB:O15379}. Note=Colocalizes with XBP1 and AKT1 in the cytoplasm. Predominantly expressed in the nucleus in the presence of CCAR2. {ECO:0000250|UniProtKB:O15379}

## Images




WB Suggested Anti-Hdac3 Antibody Titration: 0.2-1 µg/ml
ELISA Titer: 1:12500
Positive Control: Rat Liver