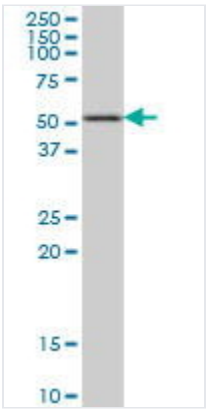
# HDAC3 Antibody – Mouse Monoclonal

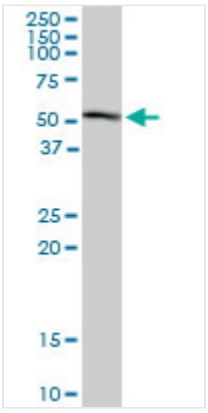
## PRODUCT OVERVIEW

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|---|---|
| **Product Name** | HDAC3, Monoclonal Antibody |
| **Full Product Name** | HDAC3 (Histone Deacetylase 3, HD3, RPD3, RPD3-2) (Biotin) |
| **Product Gene Name** | anti-HDAC3 antibody |
| **Product Synonym Names** | Histone Deacetylase 3; HD3; RPD3; RPD3-2 |
| **Clonality** | Monoclonal |
| **Isotype** | IgG2a,k |
| **Clone Number** | 3.0e+11 |
| **Host** | Mouse |
| **Form/Format** | Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Biotin. |
| **Purity/Purification** | Purified |
| **Specificity** | Recognizes HDAC3. |
| **Preparation and Storage** | Store product at 4 degree C if to be used immediately within two weeks. For long-term storage, aliquot to avoid repeated freezing and thawing and stor degree C. Aliquots are stable at -20 degree C for 12 months after receipt. Dilute required amount only prior to immediate use. Further dilutions can be r assay buffer. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. |
| **Molecular Weight** | 49,111 Da |
| **OMIM** | 605166 |
| **3D Structure** | ModBase 3D Structure for O15379 |
| **Immunogen** | HDAC3 (NP_003874, 319aa-428aa) partial recombinant protein with GST tag. MW of the GST tag alone is 26kD. |
| **Immunogen Sequence** | ISEELPYSEYFEYFAPDFTLHPDVSTRIENQNSRQYLDQIRQTIFENLKMLNHAPSVQIHDVPADLLTYDRTDEADAEERGPEENYSRPEAPNEFYDGDHD |
| **Conjugate** | Biotin |
| **Product Categories/Family for anti-HDAC3 antibody** | Antibodies; Enzymes; Deacetylase |
| **Applications Tested/Suitable for anti-HDAC3 antibody** | ELISA (EIA), Western Blot (WB) |
| **Application Notes for anti-HDAC3 antibody** | Applications are based on unconjugated antibody. |
| **Related Product Information for anti-HDAC3 antibody** | MBS6172454 is an antibody targeting HDAC3. Also known as HDAC3 (Histone Deacetylase 3, HD3, RPD3, RPD3-2) (Biotin). Host: Mouse. Mouse mo antibody raised against a partial recombinant HDAC3. |

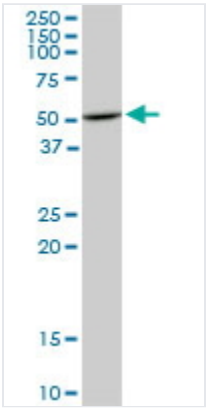
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| **Other Notes** | Small volumes of anti-HDAC3 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If neces centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional may apply. |



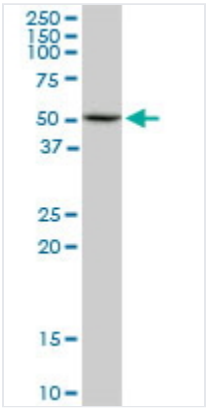

**Western Blot (WB) of anti-HDAC3 antibody**
HDAC3 monoclonal antibody (M02), clone 3E11 Western Blot analysis of HDAC3 expression in Hela S3 NE (Cat # L013V3).




**Western Blot (WB) of anti-HDAC3 antibody**
HDAC3 monoclonal antibody (M02), clone 3E11. Western Blot analysis of HDAC3 expression in NIH/3T3 (Cat # L018V1).




**Western Blot (WB) of anti-HDAC3 antibody**
HDAC3 monoclonal antibody (M02), clone 3E11. Western Blot analysis of HDAC3 expression in PC-12 (Cat # L012V1).




**Western Blot (WB) of anti-HDAC3 antibody**
HDAC3 monoclonal antibody (M02), clone 3E11. Western Blot analysis of HDAC3 expression in Raw 264.7 (Cat # L024V1).

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for HDAC3. It may not necessarily be applicable to this product.

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|---|---|
| **NCBI GI #** | 13128862 |
| **NCBI GeneID** | 8841 |
| **NCBI Accession #** | NP_003874 |
| **UniProt Primary Accession #** | O15379 |
| **UniProt Secondary Accession #** | O43268; Q9UEI5; Q9UEV0; D3DQE1 |
| **UniProt Related Accession #** | O15379 |
| **GenBank Nucleotide #** | NM_003883 |
| **NCBI Official Full Name** | histone deacetylase 3 |
| **NCBI Official Synonym Full Names** | histone deacetylase 3 |
| **NCBI Official Symbol** | HDAC3 |
| **NCBI Official Synonym Symbols** | HD3; RPD3; RPD3-2 |
| **UniProt Protein Name** | Histone deacetylase 3 |

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| **UniProt Synonym Protein Names** | RPD3-2; SMAP45 |
| **Protein Family** | Histone deacetylase |
| **UniProt Gene Name** | HDAC3 |
| **UniProt Synonym Gene Names** | HD3 |
| **UniProt Entry Name** | HDAC3_HUMAN |
| **NCBI Protein Information** | histone deacetylase 3; SMAP45 |
| **UniProt Comments for HDAC3** | HDAC3: Responsible for 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. Probably participates in the regulation of transcription through its binding to the zinc-finger transcription factor YY1; increases YY1 repression activity. Required to repress transcription of the POU1F1 transcription factor. Acts as a molecular chaperone for shuttling phosphorylated NR2C1 to PML bodies for sumoylation. Interacts with HDAC7 and HDAC9. Forms a heterologous complex at least with YY1. Interacts with DAXX, HDAC10 and DACH1. Found in a complex with NCOR1 and NCOR2. Component of the N-Cor repressor complex, at least composed of NCOR1, NCOR2, HDAC3, TBL1X, TBL1R, CORO2A and GPS2. Interacts with BCOR, MJD2A/JHDM3A, NRIP1, PRDM6 and SRY. Interacts with BTBD14B. Interacts with GLIS2. Interacts (via the DNA-binding domain) with NR2C1; the interaction recruits phosphorylated NR2C1 to PML bodies for sumoylation. Component of the Notch corepressor complex. Interacts with CBFA2T3 and NKAP. Interacts with APEX1; the interaction is not dependent on the acetylated status of APEX1. Interacts with and deacetylates MAPK14. Interacts with ZMYND15. Widely expressed. Belongs to the histone deacetylase family. HD type 1 subfamily. 2 isoforms of the human protein are produced by alternative splicing.<br><br>Protein type: Cell cycle regulation; Apoptosis; Nuclear receptor co-regulator; Transcription, coactivator/corepressor; Deacetylase; EC 3.5.1.98<br><br>Chromosomal Location of Human Ortholog: 5q31<br><br>Cellular Component: nucleoplasm; Golgi apparatus; transcriptional repressor complex; spindle microtubule; cytoplasm; histone deacetylase complex; plasma membrane; nucleus<br><br>Molecular Function: protein binding; cyclin binding; NAD-dependent histone deacetylase activity (H3-K9 specific); enzyme binding; NAD-dependent histone deacetylase activity (H3-K14 specific); chromatin DNA binding; histone deacetylase binding; protein deacetylase activity; NAD-dependent histone deacetylase activity (H4-K16 specific); chromatin binding; histone deacetylase activity; transcription factor binding; transcription corepressor activity<br><br>Biological Process: circadian rhythm; negative regulation of JNK cascade; establishment and/or maintenance of chromatin architecture; Notch signaling pathway; transcription, DNA-dependent; nerve growth factor receptor signaling pathway; regulation of mitotic cell cycle; regulation of multicellular organism growth; regulation of protein stability; chromatin modification; spindle assembly; cellular lipid metabolic process; negative regulation of transcription from RNA polymerase II promoter; negative regulation of cell cycle; protein amino acid deacetylation; positive regulation of transcription factor import into nucleus; positive regulation of transcription from RNA polymerase II promoter; positive regulation of protein amino acid phosphorylation; circadian regulation of gene expression; negative regulation of transcription, DNA-dependent; positive regulation of TOR signaling pathway; negative regulation of apoptosis |
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