

HDAC3 antibody (mAb)

Catalog Nos: 39717, 39718

RRID: AB_2793319

Clone: 3G6

Isotype: IgG

Application(s): IP, WB

Reactivity: Human

Quantities: 100 µg, 10 µg

Purification: Protein G Chromatography

Host: Mouse

Concentration: 1 µg/µl

Molecular Weight: 50 kDa

Background: HDAC3 (Histone Deacetylase 3) is a member of the class I mammalian histone deacetylases (HDACs) involved in regulating chromatin structure during transcription. These enzymes catalyze the removal of acetyl groups from lysine residues of histones and other cellular proteins. Lysine N-ε-acetylation is a dynamic, reversible and tightly regulated protein and histone modification that plays a major role in regulation of gene expression in various cellular functions. It consists of the transfer of an acetyl moiety from an acetyl coenzyme A to the ε-amino group of a lysine residue.

In vivo, acetylation is controlled by the antagonistic activities of histone acetyltransferases (HATs) and histone deacetylases (HDACs). The HDACs are grouped into four classes, on the basis of similarity to yeast counterparts: HDAC class I (HDAC1, HDAC2, HDAC3 and HDAC8), class II (HDAC4, HDAC5, HDAC6, HDAC7, 9 and 10), class III (SIRT1-7) and class IV (HDAC11).

By forming multi-protein complexes with the co-repressors SMRT and N-CoR, HDAC3 regulates the transcription of a plethora of genes. A growing list of non-histone proteins extends the role of HDAC3 beyond transcriptional repression. HDAC1, HDAC2 and HDAC3 are also ubiquitously expressed and can deacetylate both H3 and H4 in free histones or nucleosome substrate.

Immunogen: This HDAC3 antibody was raised against a synthetic peptide corresponding to amino acids 411-428 of human HDAC3.

Buffer: Purified IgG in 70 mM Tris (pH 8), 105 mM NaCl, 31 mM glycine, 0.07 mM EDTA, 30% glycerol and 0.035% sodium azide. Sodium azide is highly toxic.

Application Notes:

This antibody is also available as an AbFlex® engineered recombinant antibody. For details on the corresponding AbFlex Recombinant Antibody, see Catalog No. 91199.

Storage and Guarantee: Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage. This product is guaranteed for 12 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.