**Histone Deacetylase 3 (HDAC3) Antibody**

**Applications:**
- Western
- IP—Immunoprecipitation
- IHC—Immunohistochemistry
- ChIP—Chromatin Immunoprecipitation
- IF—Immunofluorescence
- F—Flow cytometry
- E—ELISA-Peptide

**Species Cross-Reactivity:**
- H, M, R, Mk

**Molecular Wt.:** 49 kDa

**Isotype:** Rabbit*

**Background:**
Acetylation of the histone tail causes chromatin to adopt an open conformation, allowing increased accessibility of transcription factors to DNA. The identification of histone acetyltransferases (HATs) and their large multiprotein complexes has yielded important insights into how these enzymes regulate transcription (1,2). HAT complexes interact with sequence-specific activator proteins to target specific genes. In addition to histones, HATs can acetylate nonhistone proteins, suggesting multiple roles for these enzymes (3). In contrast, histone deacetylation promotes a closed chromatin conformation and typically leads to repression of gene activity (4). Mammalian histone deacetylases can be divided into three classes on the basis of their similarity to various yeast deacetylases (5). Class I proteins (HDACs 1, 2, 3, and 8) are related to the yeast Rpd3-like proteins, those in class II (HDACs 4, 5, 6, 7, 9, and 10) are related to yeast Hda1-like proteins, and class III proteins are related to the yeast protein Sir2. Inhibitors of HDAC activity are now being explored as potential therapeutic cancer agents (6,7).

**Specificity/Sensitivity:**
Histone Deacetylase 3 (HDAC3) Antibody detects endogenous levels of total HDAC3 protein. The antibody does not cross-react with other HDAC proteins.

**Source/Purification:**
Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the carboxy-terminal sequence of human HDAC3. Antibodies are purified by protein A and peptide affinity chromatography.

**Storage:**
Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at −20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

**Recommended Antibody Dilutions:**
Western blotting 1:1000

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Western blotting 1:1000

**Background References:**

**Western Blot analysis of extracts from various cell lines using HDAC3 Antibody.**

**For Research Use Only. Not For Use In Diagnostic Procedures.**

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**IMPORTANT:** For western blots, incubate membrane with diluted antibody in 5% BSA, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

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