Histone Deacetylase 5 (HDAC5) Antibody

For Research Use Only. Not for Use in Diagnostic Procedures.

<table>
<thead>
<tr>
<th>Applications:</th>
<th>WB, IP, IHC-P</th>
<th>Reactivity:</th>
<th>H M R Mk</th>
<th>Sensitivity:</th>
<th>Endogenous</th>
<th>MW (kDa):</th>
<th>140</th>
<th>Source:</th>
<th>Rabbit</th>
<th>UniProt ID:</th>
<th>#Q9UQL6</th>
<th>Entrez-Gene Id:</th>
<th>10014</th>
</tr>
</thead>
</table>

**Product Usage Information**

- **Application**
  - Western Blotting
  - Immunoprecipitation
  - Immunohistochemistry (Paraffin)

- **Dilution**
  - 1:1000
  - 1:50
  - 1:100

**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.

**Specificity / Sensitivity**

Histone Deacetylase 5 (HDAC5) Antibody detects endogenous levels of total HDAC5 protein. The antibody may cross-react with high levels of HDAC4 protein.

**Source / Purification**

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the carboxy-terminal sequence of human HDAC5. Antibodies are purified by protein A and peptide affinity chromatography.

**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).

**Background References**


**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

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

**Applications Key**

- **WB**: Western Blotting
- **IP**: Immunoprecipitation
- **IHC-P**: Immunohistochemistry (Paraffin)

**Cross-Reactivity Key**

- **H**: human
- **M**: mouse
- **R**: rat
- **Mk**: hamster
- **Vir**: virus
- **Mi**: mink
- **C**: chicken
- **Dm**: D. melanogaster
- **X**: Xenopus
- **Z**: zebrafish
- **B**: bovine
- **Pg**: pig
- **Sc**: S. cerevisiae
- **Ce**: C. elegans
- **Hr**: horse
- **GP**: Guinea Pig
- **Rab**: rabbit
- **All**: all species expected

**Limited Uses**

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