

## Anti-HDAC4

Rabbit Polyclonal Antibody

**Catalog # H86-63R**

Lot # D351-6

### Cited Applications

- Western blot (1:1000)

*Ideal working dilutions for each application should be empirically determined by the investigator.*

### Specificity

Recognizes the HDAC4 protein

### Cross Reactivity

- Western blot of HDAC4 from human and mouse cells

*HDAC4 from other species may also be detectable*

### Host

Rabbit

### Immunogen

Protein Code P56524

### Formulation

TBS, 50% glycerol

### Stability

Store at 4°C (add 0.1% NaN<sub>3</sub>) for several months, and at -20°C for longer periods. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For optimal performance, avoid repeated handling and multiple freeze/thaw cycles.

### Scientific Background

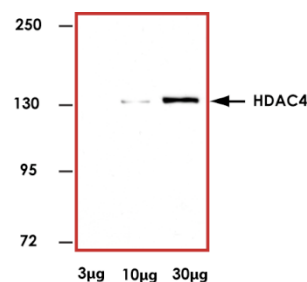
Acetylation of the histone tail causes chromatin to adopt an "open" conformation, allowing trans factors increased accessibility to DNA. The identification of histone acetyltransferases (HATs) and their large multiprotein complexes has yielded important insights into how these enzymes regulate transcription (1,2). HAT complexes interact with sequence-specific activator proteins to target specific genes. In addition to histones, HATs can acetylate non-histone 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 (HDACs 1, 2, 3 and 8) proteins 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).

### References

1. Marmorstein, R. et al. (2001) *Cell. Mol. Life Sci.* 58, 693-703.
2. Gregory, P.D. et al. (2001) *Exp. Cell Res.* 265, 195-202.
3. Liu, Y. et al. (2000) *Mol. Cell. Biol.* 20, 5540-5543.
4. Cress, S.D. and Seto, E. (2000) *J. Cell. Physiol.* 184, 1-16.
5. Gray, S.G. and Ekstrom, T.J. (2001) *Exp. Cell Res.* 262, 75-83.
6. Thiagalingam, S. et al. (2003) *Ann. N. Y. Acad. Sci.* 983, 84-100.
7. Viguishin, D.M. and Coombes, R.C. (2004) *Curr. Cancer Drug Targets* 4, 205-218.

### Sample Data



Representative western blot with Anti-HDAC4 (1:1000) using 3 µg, 10 µg, and 30 µg of Hela cell lysate.

## Anti-HDAC4

Rabbit Polyclonal Antibody

Catalog Number

H86-63R

Specific Lot Number

D351-6

Purification

Affinity Chromatography

Concentration

1.0 µg/µL

Stability

1 yr At -20°C from date of shipment

Storage & Shipping

Store product at -20°C. For optimal storage, aliquot antibody into smaller quantities after centrifugation and store at recommended temperature. For optimal performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on ice packs.

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