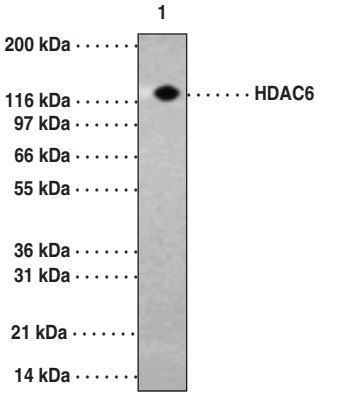
Product Information

HDAC6 Polyclonal Antibody

Item No. 13499

Contents: This vial contains 100 µg of protein G-purified IgG in 200 µl PBS containing 0.05% BSA and 0.05% sodium azide.
Synonym: Histone Deacetylase 6
Antigen: Synthetic peptide corresponding to amino acids 1-16 of human HDAC6
Host: Rabbit
Cross Reactivity: (+) Human and mouse HDAC6
Storage: ≤6 months at 4°C; ≥6 months at -20°C
Applications: The recommended starting dilution for western blot, immunoprecipitation, and ChIP is 2 µg/ml.

Histone deacetylase (HDAC) and histone acetyltransferase (HAT) are enzymes that regulate transcription by selectively deacetylating or acetylating the ε-amino groups of lysines located near the amino termini of core histone proteins.[1] Eleven members of the HDAC family have been identified.[2,3] These HDAC family members are divided into two classes, I and II. HDAC6 is a Class II HDAC that can shuttle between the nucleus and cytoplasm, suggesting potential extranuclear functions by regulating the acetylation status of non-histone substrates. By modifying chromatin structure and other non-histone proteins, HDACs play important roles in controlling complex biological events, including cell development, differentiation, programmed cell death, angiogenesis, and inflammation.[4,5] Considering these major roles, it is conceivable that dysregulation of HDACs and subsequent imbalance of acetylation and deacetylation may be involved in the pathogenesis of various diseases, including cancer and inflammatory diseases.[4]



Lane 1: NIH 3T3 cell lysate

References

1. Cress, W.D., Seto, E.J. Histone deacetylases, transcriptional control, and cancer. *J. Cell. Physiol.* **184,** 1-16 (2000).
2. Meinke, P.T., Liberator, P. Histone deacetylase: A target for antiproliferative and antiprotozoal agents. *Curr. Med. Chem.* **8(2),** 211-235 (2001).
3. Nakayama, T., Takami, Y. Participation of histones and histone-modifying enzymes in cell functions through alterations in chromatin structure. *J. Biochem.* **129,** 491-499 (2001).
4. Lin, H.-Y., Chen, C.-S., Lin, S.-P., *et al.* Targeting histone deacetylase in cancer therapy. *Medicinal Research Reviews* **26(4)**, 397-413 (2006).
5. Huang, L. Targeting histone deacetylases for the treatment of cancer and inflammatory diseases. *J. Cell. Physiol.* **39.1**, 611-616 (2006).

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