

Product Information

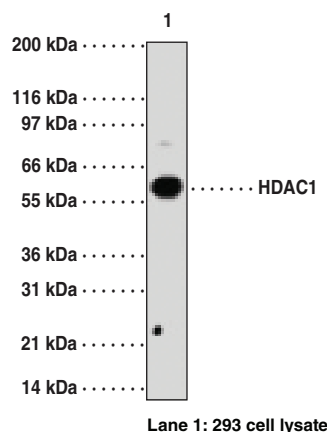


HDAC1 Polyclonal Antibody

Catalog No. 13491

Contents:	This vial contains 100 µg of protein G-purified IgG in 200 µl PBS containing 0.02% sodium azide.
Synonym:	Histone Deacetylase 1
Antigen:	Synthetic peptides corresponding to amino acids 1-5, 433-448 and 467-482 of human HDAC1
Host:	Rabbit
Cross Reactivity:	(+) Human HDAC1
Storage:	≤6 months at 4°C; ≥6 months at -20°C
Applications:	Western Blot: 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 HDAC family have been identified in the past several years.^{2,3} These HDAC family members are divided into two classes, I and II. HDAC1 is a Class I HDAC which is related to the yeast HDAC Rpd3.⁴ It is primarily localized to the nucleus with ubiquitous distribution throughout human cell lines and tissues. 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. 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



References

1. Meinke, P.T., Liberator, P. Histone deacetylase: A target for antiproliferative and antiprotozoal agents. *Curr. Med. Chem.* **8(2)**, 211-235 (2001).
2. 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).
3. Cress, W.D., Seto, E.J. Histone deacetylases, transcriptional control, and cancer. *J. Cell. Physiol.* **184**, 1-16 (2000).
4. Huang, L. Targeting histone deacetylases for the treatment of cancer and inflammatory diseases. *J. Cell. Physiol.* **39.1**, 611-616 (2006).

Related Products

HDAC3 Polyclonal Antibody - Cat. No. 13493 • HDAC4 Polyclonal Antibody - Cat. No. 13494 • HDAC6 Polyclonal Antibody - Cat. No. 13499 • HDAC7 (Phospho-Ser¹⁵⁵) Polyclonal Antibody - Cat. No. 13500 • HDAC11 Polyclonal Antibody - Cat. No. 13504

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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