HDAC4 Protein, Human (sf9)

Cat. No.:	HY-P75146
Synonyms:	Histone deacetylase 4; HD4; HDAC4; KIAA0288
Species:	Human
Source:	Sf9 insect cells
Accession:	P56524 (M612-L1084)
Gene ID:	9759
Molecular Weight:	Approximately 51 kDa

PROPERTIES

Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Solution
Formulation	Supplied as a 0.2 μm filtered solution of 20 mM Tris, 500 mM NaCl, pH 7.4, 10% Glycerol.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice

DESCRIPTION

Background	The HDAC4 protein plays a crucial role in the deacetylation of lysine residues on the N-terminal region of core histones (H2A, H2B, H3, and H4), contributing to the epigenetic repression that underlies essential cellular processes, including transcriptional regulation, cell cycle progression, and developmental events. Functioning within large multiprotein complexes, histone deacetylases, including HDAC4, orchestrate these intricate regulatory mechanisms. Specifically, HDAC4 is involved in muscle maturation through its interaction with myocyte enhancer factors (MEF2A, MEF2C, and MEF2D). Furthermore, HDAC4 plays a pivotal role in the MTA1-mediated epigenetic regulation of ESR1 expression in breast cancer. Notably, HDAC4 deacetylates HSPA1A and HSPA1B at 'Lys-77,' leading to their preferential binding to the co-chaperone STUB1, demonstrating the protein's diverse and nuanced involvement in cellular processes and molecular interactions.

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