

Recombinant Human HDAC4 Protein (aa 612-1084)

Catalog No. PKSH030998

Note: Centrifuge before opening to ensure complete recovery of vial contents.

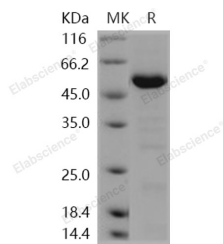
Description

Synonyms	AHO3;BDMR;HA6116;HD4;HDAC-4;HDAC-A;HDACA
Species	Human
Expression Host	Baculovirus-Insect Cells
Sequence	Met612-Leu1084
Accession	NP_006028.2
Calculated Molecular Weight	50.9 kDa
Observed molecular weight	51 kDa
Tag	None
Bioactivity	Not validated for activity

Properties

Purity	> 90 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 7.4, 10% glycerol Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 90 % as determined by reducing SDS-PAGE.

Background

HDAC4 (histone deacetylase 4), belongs to class II of the histone deacetylase/acuc/apha family. Histone Deacetylases (HDACs) are a group of enzymes closely related to sirtuins. They catalyze the removal of acetyl groups from lysine

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residues in histones and non-histone proteins, resulting in transcriptional repression. In general, they do not act autonomously but as components of large multiprotein complexes, such as pRb-E2F and mSin3A, that mediate important transcription regulatory pathways. There are three classes of HDACs; classes 1, 2 and 4, which are closely related Zn²⁺-dependent enzymes. HDACs are ubiquitously expressed and they can exist in the nucleus or cytosol. Their subcellular localization is effected by protein-protein interactions and by the class to which they belong. HDACs have a role in cell growth arrest, differentiation and death and this has led to substantial interest in HDAC inhibitors as possible antineoplastic agents. HDAC4 possesses histone deacetylase activity and represses transcription when tethered to a promoter. It does not bind DNA directly, but through transcription factors MEF2C and MEF2D. HDAC4 seems to interact in a multiprotein complex with RbAp48 and HDAC3.