

HDAC8 Protein, Human, Recombinant (GST)

General Information

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| Synonyms: | histone deacetylase 8;CDA07;MRXS6;RPD3;CDLS5;WTS;HD8;HDACL1 |
| Protein Construction: | A DNA sequence encoding the full length of human HDAC8 isoform 1 (NP_060956.1) (Met 1-Val 377) was expressed, fused with the GST tag at the C-terminus. Predicted N terminal: Met |
| Species: | Human |
| Expression Host: | Baculovirus Insect Cells |
| Accession: | Q9BY41-1 |
| Molecular Weight: | 68 kDa (predicted); 68 kDa (reducing conditions) |

QC Testing

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| Biological Activity: | Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first. |
| Purity: | > 88 % as determined by SDS-PAGE |
| Endotoxin: | < 1.0 EU/µg of the protein as determined by the LAL method. |
| Formulation: | Lyophilized from a solution filtered through a 0.22 µm filter, containing 50 mM Tris, 100 mM NaCl, 0.5 mM PMSF, 10% glycerol, pH 8.0. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization. |

Preparation and Storage

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| Reconstitution: | Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot. |
| Stability & Storage: | It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots. <small>Actual storage temperature shall be subject to the COA.</small> |
| Shipping: | In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice. |

Protein Background

Histone deacetylase 8, also known as HDAC8 and HDACL1, is a nucleus and cytoplasm protein that belongs to the histone deacetylase family and HD type 1 subfamily. Histone deacetylases (HDACs) are a growing family of enzymes implicated in transcriptional regulation by affecting the acetylation state of core histones in the nucleus of cells. HDAC8 / HDACL1 is weakly expressed in most tissues. It is expressed at a higher level in the heart, brain, kidney, and pancreas and also in the liver, lung, placenta, prostate, and kidney. HDAC8 / HDACL1 is responsible

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for the deacetylation of lysine residues on the N-terminal part of the core histones (H2A, H2B, H3, and H4). Histone deacetylation gives a tag for epigenetic repression and plays an important role in transcriptional regulation, cell cycle progression, and developmental events. Histone deacetylases act via the formation of large multiprotein complexes. HDAC8 / HDAC1 may play a role in smooth muscle cell contractility. HDAC8 / HDAC1 may be a potential drug target for neuroblastoma differentiation therapy using selective inhibitors, avoiding unspecific side effects.

Reference

Buggy JJ. et al.,2000, Biochem J. 350 (1): 199-205.

Krennhrubec K. et al., 2007, Bioorg Med Chem Lett. 17 (10): 2874-8.

Oehme I. et al., 2009, Expert Opin Investig Drugs.18 (11): 1605-17.

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