Data Sheet (Cat.No.TMPY-02317)

TargetMol

HDAC8 Protein, Mouse, Recombinant (His)

General Information

Synonyms:	histone deacetylase 8;2610007D20Rik
Protein Construction:	A DNA sequence encoding the mouse HDAC8 isoform 1 (Q8VH37-1) (Met 1-Val 377) was expressed, with a C-terminal polyhistidine tag. Predicted N terminal: Met 1
Species:	Mouse
Expression Host:	Baculovirus Insect Cells
Accession:	Q8VH37-1
Molecular Weight:	43.1 kDa (predicted); 46 kDa (reducing conditions)

QC Testing

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:	> 90 % 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 20 mM Tris, 500 mM NaCl, pH 7.4, 10% gly. 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

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

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.

Actual storage temperature shall be subject to the COA.

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

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 / HDACL1 may play a role in smooth muscle cell contractility. HDAC8 / HDACL1 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.