Data Sheet (Cat.No.TMPY-02288)

TargetMol

Glyoxalase II/HAGH Protein, Human, Recombinant (His)

General Information

Synonyms:	HAGH1;GLO2;GLX2;hydroxyacylglutathione hydrolase;GLXII
Protein Construction:	A DNA sequence encoding the mature form of human HAGH isoform 2 (Q16775-2) (Met 1-Asp 260) was fused with a polyhistide tag at the C-terminus Predicted N terminal: Met
Species:	Human
Expression Host:	E. coli
Accession:	Q16775-2
Molecular Weight:	30.2 kDa (predicted); 19 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:	> 96 % as determined by SDS-PAGE
Endotoxin:	Please contact us for more information.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 20 mM Tris, 0.15 M NaCl, 10% glycerol, pH 7.5. 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

HAGH (Hydroxyacylglutathione Hydrolase) is a Protein Coding gene. 3 alternative splicing and alternative initiation of human isoforms have been reported. The enzyme encoded by this gene is classified as a thioesterase and is responsible for the hydrolysis of S-lactoyl-glutathione to reduced glutathione and D-lactate. HAGH belongs to the Metallo-beta-lactamase superfamily. HAGH is widely expressed in the kidney, liver, and other tissues. Diseases associated with HAGH include Hydroxyacyl Glutathione Hydrolase Deficiency. Among its related pathways are

Pyruvate metabolism and Citric Acid (TCA) cycle and Metabolism. The human and rodent forms of glyoxalase II (HAGH) can readily be separated by starch gel electrophoretic procedures.

Reference

Mulley JC,et al.(1987). New regional localisations for HAGH and PGP on human chromosome 16. Hum Genet 74 (4): 423-4.

Rulli A,et al.(2001). Expression of glyoxalase I and II in normal and breast cancer tissues. Breast Cancer Res. Treat. 66 (1): 67-72.

Cordell PA,et al.(2004). The Human hydroxyacylglutathione hydrolase (HAGH) gene encodes both cytosolic and mitochondrial forms of glyoxalase II. J Biol Chem. 279 (27): 28653-61.

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