

Human GPD1 / Glycerolphosphate Dehydrogenase 1 Protein (His Tag)

Catalog Number: 15489-H07E



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

GPD-C; GPDH-C; HTGTI; AI747587; Gdc-1; Gdc1; mKIAA4010

Protein Construction:

A DNA sequence encoding the human GPD1(P21695) (Met1-Met349) was expressed with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: His

Molecular Mass:

The recombinant human GPD1 consists of 364 amino acids and predicts a molecular mass of 39.4 KDa. It migrates as an approximately 33-37 KDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 50mM Tris, 10% glycerol, pH 8.0.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

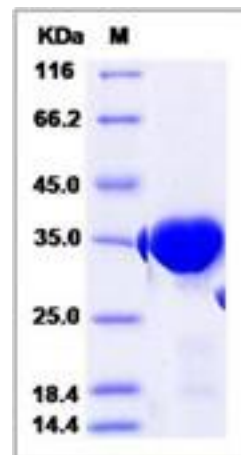
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

GPD1, also known as glycerolphosphate dehydrogenase 1, is a member of the NAD-dependent glycerol-3-phosphate dehydrogenase family. GPD1 catalyzes the reversible redox conversion of dihydroxyacetone phosphate (DHAP), thus plays a critical role in carbohydrate and lipid metabolism. It also reduces nicotinic adenine dinucleotide (NADH) to glycerol-3-phosphate (G3P) and NAD⁺. Meanwhile, GPD1 and mitochondrial glycerol-3-phosphate dehydrogenase also form a glycerol phosphate shuttle that facilitates the transfer of reducing equivalents from the cytosol to mitochondria. Mutations in GPD1 gene are a cause of transient infantile hypertriglyceridemia.

References

- 1.Ou X. et al., 2006, J Mol Biol. 357 (3): 858-69.
- 2.Ou Xianjin. et al., 2011, Journal of Molecular Biology. 357 (3): 858-69.
- 3.Harding Jr. et al., 1975, Biochem Journal. 146: 223-9.

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