

Human Phosphomannomutase 2 / PMM2 / CDG1 Protein (His Tag)

Catalog Number: 14648-H07E



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

CDG1; CDG1a; CDGS; PMI; PMI1; PMM2; AI585868; C86848

Protein Construction:

A DNA sequence encoding the human PMM2 (O15305) (Met1-Ser246) 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 PMM2 consists of 261 amino acids and predicts a molecular mass of 29.9 KDa. It migrates as an approximately 28 KDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM Tris, 100mM NaCl, 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:

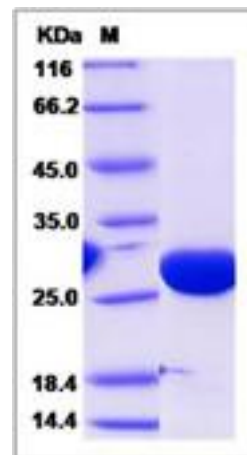
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Phosphomannomutase 2, also known as PMM2 and CDG1, belongs to the eukaryotic PMM family. Phosphomannomutase 2 catalyzes the isomerization of mannose 6-phosphate to mannose 1-phosphate. Mannose 1-phosphate is a precursor to GDP-mannose necessary for the synthesis of dolichol-P-oligosaccharides. GDP-mannose can transfer its small sugar molecule called mannose to the growing oligosaccharide chain. Once the correct number of small sugar molecules are linked together to form the oligosaccharide, it can be attached to a protein. Phosphomannomutase 2 is also required for a number of critical mannosyl transfer reactions. Mutations in PMM2 gene have been shown to cause defects in the protein glycosylation pathway manifest as carbohydrate-deficient glycoprotein syndrome type I.

References

1. Jaeken J. et al., 2002, Annual review of genomics and human genetics. 2: 129-51.
2. Matthijs G. et al., 2000, Mol Genet Metab. 68 (2): 220-6.
3. Matthijs G. et al., 1997, Nat Genet. 16 (1): 88-92.

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