

Recombinant Human Phosphomannomutase 1, His-tagged

Cat. No. PMM1-1422H Lot. No. (See product label)

SPECIFICATION

Product Overview	PMM1 Human Recombinant fused with a 20 amino acid His tag at N-terminus produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 282 amino acids (1-262 a.a.) and having a molecular mass of 31.9 kDa. The PMM1 is purified by proprietary chromatographic techniques.
Species	Human
Source	Human
ProteinLength	1-262 a.a.
Description	PMM1 is an enzyme involved in the synthesis of the GDP-mannose and dolichol-phosphate-mannose required for a number of critical mannosyl transfer reactions. PMM1 catalyzes the conversion between D-mannose 6-phosphate and D-mannose 1-phosphate which is a substrate for GDP-mannose synthesis. GDP-mannose is used for the synthesis of dolichol-phosphate-mannose, which is crucial for N-linked glycosylation and accordingly the secretion of several glycoproteins as well as for the synthesis of glycosyl-phosphatidyl-inositol (GPI) anchored proteins.
Form	The PMM1 solution (0.5 mg/ml) contains 20 mM Tris-HCl buffer (pH 8.0), 10% glycerol, 2 mM DTT, 100 mM NaCl and 0.1 mM PMSF.
Purity	Greater than 90.0% as determined by SDS-PAGE.
Physical Appearance	Sterile Filtered colorless solution.

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Amino acid sequence

MGSSHHHHHH SSGLVPRGSH MAVTAQAARR KERVLCCLFDV DGTLTTPARQK
IDPEVAAFLQ KLRSRVQIGV VGGSDYCKIA EQLGDGDEVI EKFDYVFAEN
GTVQYKHGRL LSKQTIQNLH GEELLQDLIN FCLSYMALLR LPKKRGTFIE
FRNGMLNISP IGRSCTLEER IEFSELDKKE KIREKFVEAL KTEFAGKGLR
FSRGGMISFD VFPEGWDKRY CLDSLDQDSF DTIHFFGNET SPGGNDFEIF
ADPRTVGHSV VSPQDTVQRC REIFFPETAH EA

Storage

PMM1 should be stored desiccated below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name

PMM1 phosphomannomutase 1 [Homo sapiens]

Official Symbol

PMM1

Synonyms

PMM1; phosphomannomutase 1; Sec53; phosphomannomutase 1; PMM 1; PMMH-22; OTTHUMP00000198843; brain glucose-1,6-bisphosphatase

Gene ID

5372

mRNA Refseq

NM_002676

Protein Refseq

NP_002667

MIM

601786

UniProt ID

Q92871

Chromosome

22q13

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Location	
Pathway	Amino sugar and nucleotide sugar metabolism; Asparagine N-linked glycosylation; Biosynthesis of the N-glycan precursor (dolichol lipid-linked oligosaccharide, LLO) and transfer to a nascent protein; Fructose and mannose metabolism; Metabolic pathways; Metabolism of proteins; Post-translational protein modification; Synthesis of GDP-mannose; Synthesis of substrates in N-glycan biosynthesis
Function	isomerase activity; metal ion binding; phosphomannomutase activity
PDBrendering based on 2fuc	