

Recombinant Human MPI, His-tagged

Cat. No. MPI-1019H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human MPI protein, fused to His-tag at N-terminus, was expressed in E.coli (1-362aa).
Species	Human
Source	Human
Description	Mannose-6-phosphate isomerase, also known as MPI, belongs to the mannose-6-phosphate isomerase type 1 family, and is expressed in all tissues, more abundantly in heart, brain and skeletal muscle. Localized to the cytoplasm, MPI utilizes zinc as a cofactor and catalyzes the interconversion of fructose-6-phosphate and mannose-6-phosphate. Mutations in the MPI gene were found in patients with carbohydrate-deficient glycoprotein syndrome, type Ib.
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 0.4M Urea, 5% glycerol
Molecular Weight	41.9 kDa (382aa)
Purity	> 90% by SDS - PAGE
Concentration	0.5 mg/ml (determined by Bradford assay)
Sequences of amino acids	MGSSHHHHHH SSGLVPRGSH MAAPRVFPLS CAVQQYAWGK MGSNSEVARL LASSDPLAQI AEDKPYAELW MGTHPRGDAK ILDNRSQKT LSQWIAENQD SLGSKVKDTF NGNLPFLFKV LSVETPLSIQ AHPNKELAEK LHLQAPQHYP

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DANHKPEMAI ALTPFQGLCG FRPVEEIVTF LKTAAGNNME DIFGELLQL
 HQQYPGDIGC FAIYFLNLLT LKPGEAMFLE ANVPAYLKG DCVECMACSD
 NTVRAGLTPK FIDVPTLCM LSYTPSSSKD RLFLPTRSQE DPYLSIYDPP
 VPDFTIMKTE VPGSVTEYKV LALDSASILL MVQGTVIAS PTTQTPIPLQ
 RGGVLFIGAN ESVSLKLTEP KDLLIFRACC LL

Storage

Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

Pathways

Amino sugar and nucleotide sugar metabolism; Asparagine N-linked glycosylation; Fructose and mannose metabolism; Metabolic pathways; Metabolism of proteins; Post-translational protein modification; Synthesis of GDP-mannose; Synthesis of substrates in N-glycan biosynthesis

GENE INFORMATION

Gene Name

[MPI mannose phosphate isomerase \[Homo sapiens \]](#)

Official Symbol

[MPI](#)

Synonyms

MPI; PMI; PMI1; CDG1B; FLJ39201; mannose phosphate isomerase; mannose-6-phosphate isomerase; phosphohexomutase; OTTHUMP00000183487; phosphomannose isomerase 1; mannose-6- phosphate isomerase; EC 5.3.1.8; EC 5.3.18

Gene ID

[4351](#)

mRNA Refseq

[NM_002435](#)

Protein Refseq

[NP_002426](#)

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MIM	154550
UniProt ID	P34949
Chromosome Location	15q22-qter
Function	isomerase activity; mannose-6-phosphate isomerase activity; metal ion binding; zinc ion binding

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