Mannose Phosphate Isomerase (MPI) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Mannose Phosphate Isomerase (MPI), ELISA Kit
Full Product Name	Human Mannose Phosphate Isomerase ELISA Kit
Product Gene Name	MPI elisa kit
Species Reactivity	Human
Assay Type	Sandwich
Preparation and Storage	Store all reagents at 2-8 degree C
Molecular Weight	46,656 Da
Chromosome Location	Chromosome: 15; NC_000015.9 (75182410..75190565). Location: 15q22-qter
OMIM	154550
3D Structure	ModBase 3D Structure for P34949
Related Product Information for MPI elisa kit	MBS032710 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Mannose Phosphate Isomerase (MPI) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing MPI. The ELISA analytical biochemical technique of the MBS032710 kit is based on MPI antibody-MPI antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect MPI antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, MPI. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).
Other Notes	Small volumes of MPI elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MPI. It may not necessarily be applicable to this product.

NCBI GI #	7159280
NCBI GeneID	4351
NCBI Accession #	AAF37697.1
UniProt Primary Accession #	P34949
UniProt Secondary Accession #	Q96AB0; A8K8K9
UniProt Related Accession #	P34949
NCBI Official Full Name	mannose phosphate isomerase
NCBI Official Synonym Full Names	mannose phosphate isomerase
NCBI Official Symbol	MPI
NCBI Official Synonym Symbols	PMI; PMI1; CDG1B
UniProt Protein Name	Mannose-6-phosphate isomerase
UniProt Synonym Protein Names	Phosphohexomutase; Phosphomannose isomerase

Protein Family	Mannose-6-phosphate isomerase
UniProt Gene Name	MPI
UniProt Synonym Gene Names	PMI1; PMI
UniProt Entry Name	MPI_HUMAN
NCBI Protein Information	mannose-6-phosphate isomerase; phosphohexomutase; phosphomannose isomerase 1; mannose-6- phosphate isomerase
NCBI Summary for MPI	Phosphomannose isomerase catalyzes the interconversion of fructose-6-phosphate and mannose-6-phosphate and plays a critical role in maintaining the supply of D-mannose derivatives, which are required for most glycosylation reactions. Mutations in the MPI gene were found in patients with carbohydrate-deficient glycoprotein syndrome, type Ib. [provided by RefSeq, Jul 2008]
UniProt Comments for MPI	MPI: Involved in the synthesis of the GDP-mannose and dolichol-phosphate-mannose required for a number of critical mannosyl transfer reactions. Defects in MPI are the cause of congenital disorder of glycosylation type 1B (CDG1B); also known as carbohydrate-deficient glycoprotein syndrome type Ib (CDGS1B). Congenital disorders of glycosylation are metabolic deficiencies in glycoprotein biosynthesis that usually cause severe mental and psychomotor retardation. They are characterized by under- glycosylated serum glycoproteins. CDG1B is clinically characterized by protein-losing enteropathy. Belongs to the mannose-6-phosphate isomerase type 1 family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Carbohydrate Metabolism - fructose and mannose; Carbohydrate Metabolism - amino sugar and nucleotide sugar; EC 5.3.1.8; Isomerase Chromosomal Location of Human Ortholog: 15q24.1 Cellular Component: cytosol Molecular Function: mannose-6-phosphate isomerase activity; zinc ion binding Biological Process: cellular protein metabolic process; dolichol-linked oligosaccharide biosynthetic process; GDP-mannose biosynthetic process; protein amino acid N-linked glycosylation via asparagine; post-translational protein modification Disease: Congenital Disorder Of Glycosylation, Type Ib
Research Articles on MPI	**1.** Phosphomannose isomerase inhibitors improve N-glycosylation in selected phosphomannomutase-deficient fibroblasts
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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