

Product datasheet for **SC335105**

Mannose Phosphate Isomerase (MPI) (NM_001289155) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mannose Phosphate Isomerase (MPI) (NM_001289155) Human Untagged Clone
Tag:	Tag Free
Symbol:	MPI
Synonyms:	CDG1B; PMI; PMI1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001289155, the custom clone sequence may differ by one or more nucleotides

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ATGGCCGCTCCGCGAGTATCCCACTTTCCTGTGCGGTGTCAGCAGTATGCCTGGGGGAAGATGGGTCCA  
ACAGCGAAGTGGCGGGCTGTTGGCCAGCAGTGATCCACTGGCCAGATCGCAGAGGACAAGCCTTATGC  
AGAGTTGTGGATGGGACTCACCCCGAGGGGATGCCAAGATCCTTGACAACCGCATCTCACAGAAGACC  
CTAAGCCAGTGGATTGCTGAGAACCAGGACAGCTTGGGCTCAAAGGTCAAGGACACCTTTAATGGCAACC  
TGCCCTTCTCTCAAAGTGTCTCAGTTGAAACACCCCTGTCCATCCAGGCACACCCTAACCAAGGAGCT  
GGCAGAGAAGCTGCACCTCCAGGCTCCGCAGCACTACCCCGATGCCAACCACAAGCCAGAGATGGCCATT  
GCCCTCACCCCTTCCAGGGCTTGTGTGGCTTCCGGCCAGTTGAGGAGATTGTAACCTTTCTAAAGAAGG  
TGCTGAGTTTTCAGTTCCTGATTGGAGATGAGGCAGCAACACACCTGAAGCAGACCATGAGCCATGACTC  
CCAGGCTGTGGCCTCCTCTCTGCAGAGCTGTTTCTCCACCTGATGAAGAGTGAGAAGAAGGTGGTGGTG  
GAACAGCTCAACCTGTTGGTGAAGCGGATCTCCAGCAAGCGGCTGCCGAAACAACATGGAGGACATCT  
TTGGGGAGCTTTTGTACAGCTGCACCAGCAGTACCCAGGTGATATCGGCTGCTTTGCCATCTACTTCT  
GAACCTGCTTACCCTGAAGCCTGGGGAGGCCATGTTTCTGGAGGCCAACGTACCCCATGCCTACCTGAAA  
GGAGGTCCCTGGCTCTGTCACTGA
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Restriction Sites:	Sgfl-MluI
ACCN:	NM_001289155
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).



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Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	<u>NM_001289155.1, NP_001276084.1</u>
RefSeq Size:	2868 bp
RefSeq ORF:	864 bp
Locus ID:	4351
Cytogenetics:	15q24.1
Protein Families:	ES Cell Differentiation/IPS
Protein Pathways:	Amino sugar and nucleotide sugar metabolism, Fructose and mannose metabolism, Metabolic pathways
Gene Summary:	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. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2014] Transcript Variant: This variant (2) lacks an exon in the 3' coding region, which results in a frameshift, compared to variant 1. The encoded isoform (2) has a shorter and distinct C-terminus, compare to isoform 1.