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Product datasheet for SC316212

Mannose Phosphate Isomerase (MPI) (NM_002435) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mannose Phosphate Isomerase (MPI) (NM_002435) Human Untagged Clone
Tag:	Tag Free
Symbol:	Mannose Phosphate Isomerase
Synonyms:	CDG1B; PMI; PMI1
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene ORF within SC316212 sequence for NM_002435 edited (data generated by NextGen Sequencing)

ATGGCCGCTCCGCGAGTATTCCCACTTTCCTGTGCGGTGCAGCAGTATGCCTGGGGGAAG
ATGGGTTCCAACAGCGAAGTGGCGCGGCTGTTGGCCAGCAGTGATCCACTGGCCCAGATC
GCAGAGGACAAGCCTTATGCAGAGTTGTGGATGGGGACTCACCCCCGAGGGGATGCCAAG
ATCCTTGACAACCGCATCTCACAGAAGACCCTAAGCCAGTGGATTGCTGAGAACCAGGAC
AGCTTGGGCTCAAAGGTCAAGGACACCTTTAATGGCAACCTGCCCTTCCTCTTCAAAGTG
CTCTCAGTTGAAACACCCCTGTCCATCCAGGCACACCCTAACAAGGAGCTGGCAGAGAAG
CTGCACCTCCAGGCTCCGCAGCACTACCCCGATGCCAACCACAAGCCAGAGATGGCCATT
GCCCTCACCCCCTTCCAGGGCTTGTGTGGCTTCCGGCCAGTTGAGGAGATTGTAACCTTT
CTAAAGAAGGTGCCTGAGTTTCAGTTCCTGATTGGAGATGAGGCAGCAACACACCTGAAG
CAGACCATGAGCCATGACTCCCAGGCTGTGGCCTCCTCTCTGCAGAGCTGTTTCTCCCAC
CTGATGAAGAGTGAGAAGAAGGTGGTGGTGGAACAGCTCAACCTGTTGGTGAAGCGGATC
TCCCAGCAAGCGGCTGCCGGAAACAACATGGAGGACATCTTTGGGGAGCTTTTGCTACAG
CTGCACCAGCAGTACCCAGGTGATATCGGCTGCTTTGCCATCTACTTCCTGAACCTGCTT
ACCCTGAAGCCTGGGGAGGCCATGTTTCTGGAGGCCAACGTACCCCATGCCTACCTGAAA
GGAGACTGCGTGGAGTGCATGGCGTGTTCAGACAACACAGTTCGTGCTGGCCTGACACCC
AAGTTCATTGATGTGCCAACCCTGTGTGAAATGCTCAGCTATACCCCTAGCTCCAGCAAG
GACAGGCTCTTTCTCCCAACACGGAGTCAGGAAGACCCCTACCTCTCAATCTATGACCCC
CCTGTACCAGACTTCACCATTATGAAGACGGAGGTCCCTGGCTCTGTCACTGAATACAAG
GTCTTGGCACTGGACTCTGCCAGCATCCTCCTGATGGTACAGGGGACAGTAATAGCCAGC
ACACCCACAACCCAGACACCAATCCCTCTGCAACGTGGTGGCGTGCTCTTCATTGGGGCC
AATGAGAGTGTCTCACTGAAGCTTACTGAGCCGAAGGACCTGCTGATATTCCGTGCCTGC
TGTCTGCTGTAA

Clone variation with respect to NM_002435.1

View online »

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_002435 unedited
TACACTTGTATACGACTCCTATAGGGCGGCCCGCGAACTTCGGCACGAGGCGAGCATGGC
CGCTCCGCGAGTATTCCCACTTTCCTGTGCGGTGCAGCAGTATGCCTGGGGGAAGATGGG
TTCCAACAGCGAAGTGGCGCGGCTGTTGGCCAGCAGTGATCCACTGGCCCAGATCGCAGA
GGACAAGCCTTATGCAGAGTTGTGGATGGGGACTCACCCCCGAGGGGATGCCAAGATCCT
TGACAACCGCATCTCACAGAAGACCCTAAGCCAGTGGATTGCTGAGAACCAGGACAGCTT
GGGCTCAAAGGTCAAGGACACCTTTAATGGCAACCTGCCCTTCCTCTTCAAAGTGCTCTC
AGTTGAAACACCCCTGTCCATCCAGGCACACCCTAACAAGGAGCTGGCAGAGAAGCTGCA
CCTCCAGGCTCCGCAGCACTACCCCGATGCCAACCACAAGCCAGAGATGGCCATTGCCCT
CACCCCCTTCCAGGGCTTGTGTGGCTTCCGGCCAGTTGAGGAGATTGTAACCTTTCTAAA
GAAGGTGCCTGAGTTTCAGTTCCTGATTGGAGATGAGGCAGCAACACACCTGAAGCAGAC
CATGAGCCATGACTCCCAGGCTGTGGCCTCCTCTCTGCAGAGCTGTTTCTCCCACCTGAT
GAAGAGTGAGAAGAAGGTGGTGGTGGAACAGCTCAACCTGTTGGTGAAGCGGATCTCCCA
GCAAGCGGCTGCCGGAAACAACATGGAGGACATCTTTGGGGAGCTTTTGCTACAGCTGCA
CCAGCAGTACCCAGGTGATATCGGCTGCTTTGCCATCTACTTCCTGAACCTGCTTACCCT
GAAGCCTGGGGAGGCCATGTTTCTGGAGGCCAACGTACCCCATGCCTACCTGAAAGGAGA
CTGCGTGAGTGCATGGCGTGTTCAGACAACAACAGTTTCGTGCTGGCCCTGACACCCAAG
GTCCA

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_002435 unedited
CGTTGATGCACTTCAGGGCCGGAGAGGCACTGGGGAGGGGTCACAGGGATGCCACCCGGG
ATCTGTTCAGGAAACAGCTATGACCGCGGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTT
TTTTTCTCAACACAAGTGATCTTTAATTGCTTTGACAGAACAAGGGTGTAAACAGCGTTA
GTCTACAGGCCTACCCTTTCCCTTTCCTCCTCTGCAGCTGAGGAAATGGGCAGTCCCATC
GCTAGAACCCTGTTCTTAAAAATTACCTGGTCTCTTGCTCTGACAGATGCTGAGCTAATG
CTGGGTCACATATTTAACAGCTAGCCTAAAGCCATAGGCTGGAACAGAGTTGGCAAGAGC
CTGGCTCAGGTGTAGCGAGGAGTAGAGAGGGAAGACAAAGGGAGTATCAAACCCCTCACA
CGGGCCTCTCCTCCCCAAAGATGGTTCCACCTGGGTGTGTTCAGGAGTCACTACCTTCAC
GCTCCCTCCTCCCCCACCCCAGCTCTTCCAGGGTATACCTAAGGGGTCCAGAGCAAGGAA
GGGGGCTTGAGCTGGGCCCGAGGAGGTGAGGTTGGCTGGAATTTAGGGTGGCTGGCAGAG
GAGAGCTGGGGAGGCTGCAGCCTTTACAGCAGACAGCAGGCACGGAATATCAGCAGGTCC
TTCGGCTCAGTAAGCTTCAGTGAGACACTCTCATTGGCCCCAATGAAGAGCACGCCACCA
CGTTGCAGAGGGATTGGTGTCTGGGTTGTGGGTGTGCTGGCTATTACTGTCCCCTGTACC
ATCAGGAGGATGCTGGCAGAGTCCAGTGCCAAGACCTTGTATTCAGTGACAGAGCCAGGA
CCTCCGTCTCATATGGTGAGTCTGGTACAGGGGGGTCATAGATTGAGAGGTAGGGGTCTT
CCTGACTCCGTGTTGGGAGAAAAGAAGCCTTGTCCTTGCTGGAGCTAGGGGTATA

Restriction Sites: Please inquire

ACCN: NM_002435

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).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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:	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:	NM_002435.1, NP_002426.1
RefSeq Size:	1771 bp
RefSeq ORF:	1272 bp
Locus ID:	4351
UniProt ID:	P34949
Cytogenetics:	15q24.1
Domains:	PMI_typeI
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 (1) encodes the longest isoform (1).