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Product datasheet for RG237730

Mannose Phosphate Isomerase (MPI) (NM_001289157) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: Mannose Phosphate Isomerase (MPI) (NM_001289157) Human Tagged ORF Clone

Tag: TurboGFP

Symbol: MPI

Synonyms: CDG1B; PMI; PMI1

Mammalian Cell Selection: Neomycin

Vector: pCMV6-AC-GFP (PS100010)

E. coli Selection: Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

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>RG237730 representing NM_001289157.
Blue=ORF Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGCCGCTCCGCGAGTATTCCCACTTTCCTGTGCGGTGCAGCAGTATGCCTGGGGGAAGATGGGTTCC
AACAGCGAAGTGGCGCGGCTGTTGGCCAGCAGTGATCCACTGGCCCAGATCGCAGAGGACAAGCCTTAT
GCAGAGTTGTGGATGGGGACTCACCCCCGAGGGGATGCCAAGATCCTTGACAACCGCATCTCACAGAAG
ACCCTAAGCCAGTGGATTGCTGAGAACCAGGACAGCTTGGGCTCAAAGGTCAAGGACACCTTTAATGGC
AACCTGCCCTTCCTCTTCAAAGTGCTCTCAGTTGAAACACCCCTGTCCATCCAGGCACACCCTAACAAG
GAGCTGGCAGAGAAGCTGCACCTCCAGGCTCCGCAGCACTACCCCGATGCCAACCACAAGCCAGAGATG
GCCATTGCCCTCACCCCCTTCCAGGGCTTGTGTGGCTTCCGGCCAGTTGAGGAGATTGTAACCTTTCTA
AAGACGGCTGCCGGAAACAACATGGAGGACATCTTTGGGGAGCTTTTGCTACAGCTGCACCAGCAGTAC
CCAGGTGATATCGGCTGCTTTGCCATCTACTTCCTGAACCTGCTTACCCTGAAGCCTGGGGAGGCCATG
TTTCTGGAGGCCAACGTACCCCATGCCTACCTGAAAGGAGACTGCGTGGAGTGCATGGCGTGTTCAGAC
AACACAGTTCGTGCTGGCCTGACACCCAAGTTCATTGATGTGCCAACCCTGTGTGAAATGCTCAGCTAT
ACCCCTAGCTCCAGCAAGGACAGGCTCTTTCTCCCAACACGGAGTCAGGAAGACCCCTACCTCTCAATC
TATGACCCCCCTGTACCAGACTTCACCATTATGAAGACGGAGGTCCCTGGCTCTGTCACTGAATACAAG
GTCTTGGCACTGGACTCTGCCAGCATCCTCCTGATGGTACAGGGGACAGTAATAGCCAGCACACCCACA
ACCCAGACACCAATCCCTCTGCAACGTGGTGGCGTGCTCTTCATTGGGGCCAATGAGAGTGTCTCACTG
AAGCTTACTGAGCCGAAGGACCTGCTGATATTCCGTGCCTGCTGTCTGCTG
ACGCGTACGCGGCCGCTCGAG - GFP Tag -  GTTTAAAC
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View online »

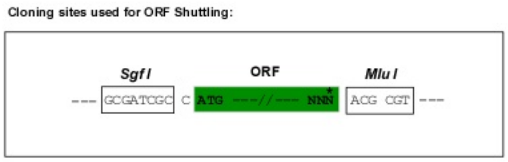
Protein Sequence:

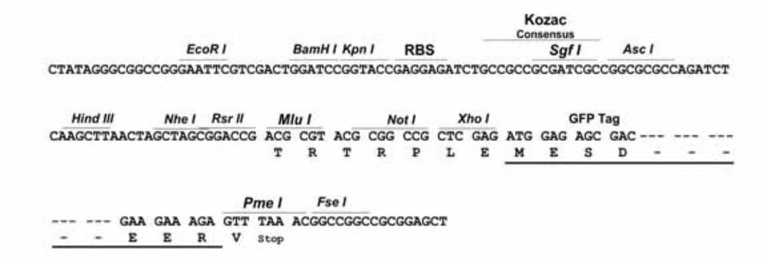
>Peptide sequence encoded by RG237730
Blue=ORF Red=Cloning site Green=Tag(s)

MAAPRVFPLSCAVQQYAWGKMGSNSEVARLLASSDPLAQIAEDKPYAELWMGTHPRGDAKILDNRISQK
TLSQWIAENQDSLGSKVKDTFNGNLPFLFKVLSVETPLSIQAHPNKELAEKLHLQAPQHYPDANHKPEM
AIALTPFQGLCGFRPVEEIVTFLKTAAGNNMEDIFGELLLQLHQQYPGDIGCFAIYFLNLLTLKPGEAM
FLEANVPHAYLKGDCVECMACSDNTVRAGLTPKFIDVPTLCEMLSYTPSSSKDRLFLPTRSQEDPYLSI
YDPPVPDFTIMKTEVPGSVTEYKVLALDSASILLMVQGTVIASTPTTQTPIPLQRGGVLFIGANESVSL
KLTEPKDLLIFRACCLL
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMKSTKGALTFSPYLLSHV
MGYGFYHFGTYPSGYENPFLHAINNGGYTNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYYSSVVDSHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

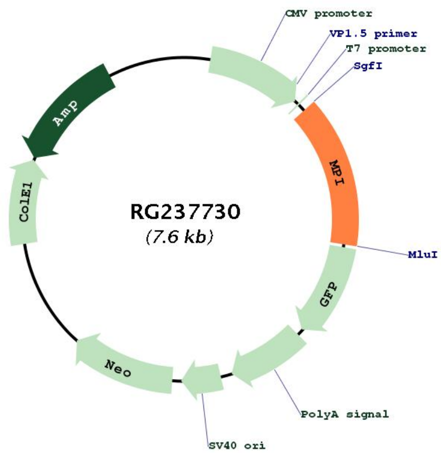
Restriction Sites: SgfI-MluI

Cloning Scheme:





Plasmid Map:



ACCN:	NM_001289157
ORF Size:	1086 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
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).
RefSeq:	NM_001289157.2
RefSeq Size:	2894 bp
RefSeq ORF:	1089 bp
Locus ID:	4351
UniProt ID:	P34949
Cytogenetics:	15q24.1
Protein Families:	ES Cell Differentiation/IPS
Protein Pathways:	Amino sugar and nucleotide sugar metabolism, Fructose and mannose metabolism, Metabolic pathways
MW:	40.3 kDa
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]