

Product datasheet for **RG229949**

PGM1 (NM_001172819) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PGM1 (NM_001172819) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PGM1
Synonyms:	CDG1T; GSD14
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG229949 representing NM_001172819
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGTGAAGATCGTGACAGTTAAGACCCAGGCGTACCAGGACCAGAAGCCGGGCACGAGCGGGCTGCGGA
 AGCGGGTGAAGGTGTTCCAGAGCAGCGCAACTACGCGGAGAAGTTCATCCAGAGTATCATCTCCACCGT
 GGAGCCGGCGCAGCGGCAGGAGGCCACGCTGGTGGTGGGCGGGACGCGCGGTTCTACATGAAGGAGGCC
 ATCCAGCTCATCGCTCGCATCGCTGCCCAACGGGATCGGTGCTTGGTTATCGGACAGAATGGAATCC
 TCTCCACCCCTGCTGTATCCTGCATCATTAGAAAAATCAAAGCCATTGGTGGGATCATTCTGACAGCCAG
 TCACAACCCAGGGGGCCCAATGGAGATTTTGAATCAAATTCAATTTCTAATGGAGGTCCTGCTCCA
 GAAGCAATAACTGATAAAATTTCCAAATCAGCAAGACAATTGAAGAATATGCAGTTTGCCTGACCTGA
 AAGTAGACCTTGGTGTCTGGGAAAGCAGCAGTTTACTTGGAAAATAAGTTCAAACCCCTCACAGTGGA
 AATTGTGGATTCCGTAGAAAGCTTATGCTACAATGCTGAGAAGCATCTTTGATTTCACTGCACTGAAAGAA
 CTACTTTCTGGCCAAACCGACTGAAGATCTGTATTGATGCTATGCATGGAGTTGTGGGACCGTATGTAA
 AGAAGATCCTCTGTGAAGAACTCGGTGCCCTGCGAACTCGGCAGTAACTGCGTTCTCTGGAGGACTT
 TGGAGGCCACCACCTGACCCCAACCTCACCTATGCAGCTGACCTGGTGGAGACCATGAAGTCAGGAGAG
 CATGATTTTGGGCTGCCTTTGATGGAGATGGGATCGAAACATGATTCTGGGCAAGCATGGGTTCTTTG
 TGAACCCCTCAGACTCTGTGGCTGTATTGCTGCCAACATCTTCAGCATTCCGTATTTCCAGCAGACTGG
 GGTCCGCGGCTTGCACGGAGCATGCCACGAGTGGTCTCTGGACCGGGTGGCTAGTGTACAAAGATT
 GCTTTGTATGAGACCCCAACTGGCTGGAAGTTTTTTGGGAATTTGATGGACGCGAGCAAAGTGTCCCTTT
 GTGGGAGGAGAGCTTCGGGACCGGTTCTGACCACATCCGTGAGAAAGATGGACTGTGGGCTGCTCCTTG
 CTGGCTCTCCATCCTAGCCACCCGCAAGCAGAGTGTGGAGGACATTCTCAAAGATCATTGGCAAAGCAT
 GGCCGGAATTTCTTACCAGGTATGATTACGAGGAGGTGGAAGCTGAGGGCGCAAACAAAATGATGAAGG
 ACTTGGAGGCCCTGATGTTTATCGCTCCTTTGTGGGAAAGCAGTTCTCAGCAAATGACAAAGTTTACAC
 TGTGGAGAAGGCCGATAACTTTGAATACAGCGACCCAGTGGATGGAAGCATTTCAAGAAATCAGGGCTTG
 CGCCTCATTTTACAGATGGTTCTGAATCGTCTTCCGACTGAGCGGCACTGGGAGTGCCGGGGCCACCA
 TTCGGCTGTACATCGATAGCTATGAGAAGGACGTTGCCAAGATTAACCAGGACCCCCAGGTCATGTTGGC
 CCCCTTATTTCCATTGCTCTGAAAGTGTCCAGCTGCAGGAGAGGACGGGACGCACTGCACCCACTGTC
 ATCACC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG229949 representing NM_001172819
 Red=Cloning site Green=Tags(s)

MVKIVTVKQAYQDQKPGTSGLRKRKRVKVFQSSANYAENFIQSIIISTVEPAQRQEATLVVGGDRFYMKEA
 IQLIARIAAANGIGRLVIGQNGILSTPAVSCIIRKIKAIIGGIILTASHNPGGPNGDFGIKFNISNGGPAP
 EAITDKIFQISKIIEEYAVCPDLKVDLGVLGKQQFDLENKFKPFTVEIVDSVEAYATMLRSIFDFSALKE
 LLSGPNRLKICIDAMHGTVVPPYVKKILCEELGAPANSVNCVPLEDFGGHHPDNLTYAADLVETMKSGE
 HDFGAAFDGDGRNMILGKHGFFVNPSSVAVIAANIFSIPIYFQQTGVRGFARSMPTSGALDRVASATKI
 ALYETPTGWKFFGNLMDASKLSLCGEESFGTGSDHIREKDGLWAVLAWLSILATRKQSVEDILKDHVQKH
 GRNFFTRYDYEVEAEGANKMMKDLEALMFRSFGVKGQFSANDKVYTVKADNFEYSDPVDGSI SRNQGL
 RLIFTDGSRI VFRLSGTGSAGATIRLYIDSYEKDVAKINQDPQVMLAPLISIALKVSQQLQERTGRTAPT
 VIT

TRTRPLE – GFP Tag – V

Restriction Sites:

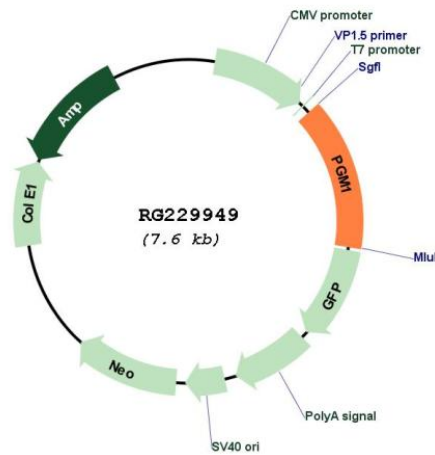
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_001172819
 ORF Size: 1689 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).
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:	NM_001172819.1 , NP_001166290.1
RefSeq Size:	2364 bp
RefSeq ORF:	1098 bp
Locus ID:	5236
UniProt ID:	P36871
Cytogenetics:	1p31.3
Protein Pathways:	Amino sugar and nucleotide sugar metabolism, Galactose metabolism, Glycolysis / Gluconeogenesis, Metabolic pathways, Pentose phosphate pathway, Starch and sucrose metabolism
Gene Summary:	The protein encoded by this gene is an isozyme of phosphoglucomutase (PGM) and belongs to the phosphohexose mutase family. There are several PGM isozymes, which are encoded by different genes and catalyze the transfer of phosphate between the 1 and 6 positions of glucose. In most cell types, this PGM isozyme is predominant, representing about 90% of total PGM activity. In red cells, PGM2 is a major isozyme. This gene is highly polymorphic. Mutations in this gene cause glycogen storage disease type 14. Alternatively spliced transcript variants encoding different isoforms have been identified in this gene.[provided by RefSeq, Mar 2010]