

Product datasheet for **RC230308**

PGM1 (NM_001172818) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PGM1 (NM_001172818) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PGM1
Synonyms:	CDG1T; GSD14
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC230308 representing NM_001172818
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGTGATTTTGAAGAATGGATTTCTGGGACATATAGAAAAATGGAAGAAGTCTCTCCCTCTGTTGA
 CTTTTGCTACAGCTCCCTACCACGATCAGAAACCAGGAACAAGTGGATTACGGAAGAAAACCTATTATTT
 TGAGGAAAAGCCATGCTATCTGGAGAATTCATCCAGAGTATATTCTTTCCATAGACCTAAAAGATCGC
 CAGGGATCATCACTGGTGGTGGTGGAGATGGGCGGTACTTTAATAAATCAGCAATAGAAACAATAGTGC
 AGATGGCAGCTGCCAATGGGATCGGTGCTTGGTTATCGGACAGAATGGAATCCTCTCCACCCCTGCTGT
 ATCCTGCATCATTAGAAAAATCAAAGCCATTGGTGGGATCATTCTGACAGCCAGTCAACAACCCAGGGGGC
 CCCAATGGAGATTTTGAATCAAATCAATATTTCTAATGGAGGTCTGCTCCAGAAGCAATAACTGATA
 AAATTTCCAAATCAGCAAGACAATTGAAGAATATGCAGTTTGCCTGACCTGAAAGTAGACCTTGGTGT
 TCTGGGAAAGCAGCAGTTTGACTTGGAAAATAAGTTCAAACCTTCACAGTGGAAATTTGGATTCCGTA
 GAAGCTTATGCTACAATGCTGAGAAGCATCTTTGATTTCAAGTGCAGTGAAGAAGTACTTTCTGGGCCAA
 ACCGACTGAAGATCCGTATTGATGCTATGCATGGAGTTGTGGGACCGTATGTAAGAAGATCCTCTGTGA
 AGAACTCGGTGCCCTGCGAACTCGGCAGTTAACTGCGTTCTCTGGAGGACTTTGGAGGCCACCACCT
 GACCCCAACCTCACCTATGCAGCTGACCTGGTGGAGACCATGAAGTCAGGAGAGCATGATTTTGGGGCTG
 CCTTTGATGGAGATGGGGATCGAAACATGATTCTGGGCAAGCATGGGTTCTTTGTGAACCCTTCAGACTC
 TGTGGCTGTCATTGCTGCCAACATCTTCAGCATTCCGTATTTCCAGCAGACTGGGGTCCGCGGCTTTGCA
 CGGAGCATGCCACGAGTGGTCTGACCGGGTGGCTAGTGCTACAAAGATTGCTTTGTATGAGACCC
 CAACTGGCTGGAAGTTTTTTGGGAATTTGATGGACGCGAGCAAACTGTCCCTTTGTGGGAGGAGAGCTT
 CGGGACCGGTTCTGACCACATCCGTGAGAAAGATGGACTGTGGGCTGTCTTGCCTGGCTCTCCATCCTA
 GCCACCCGCAAGCAGAGTGTGGAGGACATTCTCAAAGATCATTGGCAAAAGTATGGCCGGAATTTCTTCA
 CCAGGTATGATTACGAGGAGGTGGAAGCTGAGGGCGCAACAATAATGATGAAGGACTTGGAGGCCCTGAT
 GTTTGATCGCTCTTTGTGGGAAGCAGTTCTCAGCAAATGACAAAGTTTAACTGTGGAGAAGGCCGAT
 AACTTTGAATACAGCGACCCAGTGGATGGAAGCATTTCAGAAATCAGGGCTTGCCTCATTTTTCACAG
 ATGTTTCTCGAATCGTCTCCGACTGAGCGGACTGGGAGTCCCGGGGCCACCATTCCGGTGTACATCGA
 TAGCTATGAGAAGGACGTTGCCAAGATTAACCAGGACCCCAAGTTCATGTTGGCCCCCTTATTTCCATT
 GCTCTGAAAGTGTCCAGCTGCAGGAGAGGACGGGACGCACTGCACCCACTGTCATCACC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC230308 representing NM_001172818
 Red=Cloning site Green=Tags(s)

MSDFEEWISGTYRKMEEGPLPLLFATAPYHDQKPGTSLRKKTYFEEKPCYLENFIQSIFSIDLKDR
 QGSSLVVGDDGRYFNKSAIETIVQMAAANGIGRLVIGQNGILSTPAVSCIIRKIKAIIGGIILTASHNPGG
 PNGDFGIKFNISNGGPAPEAITDKIFQISKTIIEYAVCPDLKVDLGLVGLKQQFDLENKFKPFTVEIVDSV
 EAYATMLRSIFDFSALKELLSGPNRLKIRIDAMHGTVVGPYVKILCEELGAPANSAVNCPLEDFGGHHP
 DPNLTYAADLVTMKSGEHDFGAAFDGDRNMILGKHGFFVNPSSVAVIAANIFSIPYFQQTGVRGFA
 RSMPTSGALDRVASATKIALYETPTGWKFFGNLMDASKLSLCEESFGTGS DHIREDGLWAVLAWLSIL
 ATRKQSVEDILKDHQKYGRNFFTRYDYEEVEAEGANKMMKDLEALMFDRSFVGKQFSANDKVYTVKAD
 NFEYSDPVDGSI SRNQLRLIFTDGSRI VFRLSGTGSAGATIRLYIDSYEKDVAKINQDPQYMLAPLISI
 ALKVSQ LQERTGRTAPT VIT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8068_b12.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001172818

ORF Size: 1740 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:

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_001172818.1](#), [NP_001166289.1](#)

RefSeq ORF: 1743 bp

Locus ID: 5236

UniProt ID: [P36871](#)

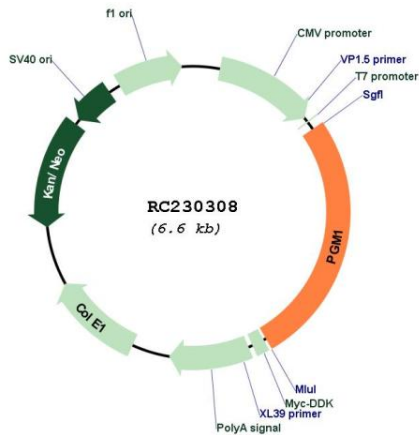
Cytogenetics: 1p31.3

Protein Pathways: Amino sugar and nucleotide sugar metabolism, Galactose metabolism, Glycolysis / Gluconeogenesis, Metabolic pathways, Pentose phosphate pathway, Starch and sucrose metabolism

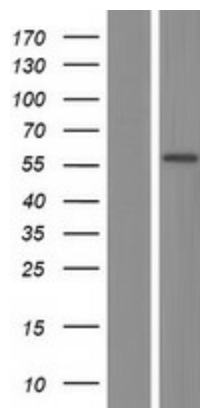
MW: 64.2 kDa

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. Alternativley spliced transcript variants encoding different isoforms have been identified in this gene.[provided by RefSeq, Mar 2010]

Product images:



Circular map for RC230308



Western blot validation of overexpression lysate (Cat# [LY433308]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC230308 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).