

Product datasheet for **RC205771**

PGM1 (NM_002633) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PGM1 (NM_002633) 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)



[View online »](#)

ORF Nucleotide Sequence:

>RC205771 representing NM_002633
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGTGAAGATCGTGACAGTTAAGACCCAGGCGTACCAGGACCAGAAGCCGGGCACGAGCGGGCTGCGGA
 AGCGGGTGAAGGTGTTCCAGAGCAGCGCAACTACGCGGAGAAGTTCATCCAGAGTATCATCTCCACCGT
 GGAGCCGGCGCAGCGGCAGGAGGCCACGCTGGTGGTGGGCGGGACGCGCGGTTCTACATGAAGGAGGCC
 ATCCAGCTCATCGCTCGCATCGCTGCCCAACGGGATCGGTGCTTGGTTATCGGACAGAATGGAATCC
 TCTCCACCCCTGCTGTATCCTGCATCATTAGAAAAATCAAAGCCATTGGTGGGATCATTCTGACAGCCAG
 TCACAACCCAGGGGGCCCAATGGAGATTTTGAATCAAATTCAATTTCTAATGGAGGTCCTGCTCCA
 GAAGCAATAACTGATAAAATTTCCAAATCAGCAAGACAATTGAAGAATATGCAGTTTGCCTGACCTGA
 AAGTAGACCTTGGTGTCTGGGAAAGCAGCAGTTTACTTGGAAAATAAGTTCAAACCCCTCACAGTGGA
 AATTGTGGATTCCGTAGAAGCTTATGCTACAATGCTGAGAAGCATCTTTGATTTCACTGCACTGAAAGAA
 CTACTTTCTGGCCAAACCGACTGAAGATCCGTATTGATGCTATGCATGGAGTTGTGGGACCGTATGTAA
 AGAAGATCCTCTGTGAAGAACTCGGTGCCCTGCGAACTCGGCAGTAACTGCGTTCTCTGGAGGACTT
 TGGAGGCCACCACCTGACCCCAACCTCACCTATGCAGCTGACCTGGTGGAGACCATGAAGTCAGGAGAG
 CATGATTTTGGGCTGCCTTTGATGGAGATGGGATCGAAACATGATTCTGGCAAGCATGGGTTCTTTG
 TGAACCCCTCAGACTCTGTGGCTGTATTGCTGCCAACATCTTCAGCATTCCGATTTCCAGCAGACTGG
 GGTCCGCGGCTTTCACGGAGCATGCCACGAGTGGTCTCTGGACCGGGTGGCTAGTGTACAAAGATT
 GCTTTGTATGAGACCCCAACTGGCTGGAAGTTTTTTGGGAATTTGATGGACGCGAGCAAATGTCCCTTT
 GTGGGAGGAGAGCTTCGGGACCGGTTCTGACCACATCCGTGAGAAAGATGGACTGTGGGCTGCTTTGC
 CTGGCTCTCCATCCTAGCCACCCGCAAGCAGAGTGTGGAGGACATTCTCAAAGATCATTGGCAAAGTAT
 GGCCGGAATTTCTTACCAGGTATGATTACGAGGAGGTGGAAGCTGAGGGCGCAAACAAAATGATGAAGG
 ACTTGGAGGCCCTGATGTTTATCGCTCCTTTGTGGGAAAGCAGTTCTCAGCAAATGACAAAGTTTACAC
 TGTGGAGAAGGCCGATAACTTTGAATACAGCGACCCAGTGGATGGAAGCATTTCAAGAAATCAGGGCTTG
 CGCCTCATTTTACAGATGGTTCTGAATCGTCTTCCGACTGAGCGGCACTGGGAGTGCCGGGGCCACCA
 TTCGGCTGTACATCGATAGCTATGAGAAGGACGTTGCCAAGATTAACCAGGACCCCAAGTTCATGTTGGC
 CCCCTTATTTCATTGCTCTGAAAGTGTCCAGCTGCAGGAGAGGACGGGACGCACTGCACCCACTGTC
 ATCACC

ACGCGTACGCGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC205771 representing NM_002633
 Red=Cloning site Green=Tags(s)

MVKIVTVKTQAYQDQKPGTSLRKRKVKVFQSSANYAENFIQSIISTVEPAQRQEATLVVGGDGRFYMKEA
 IQLIARIAAANGIGRLVIGQNGILSTPAVSCIIRKIKAIIGGIILTASHNPGGPNDFGIKFNISNGGPAP
 EAITDKIFQISKTIIEEYAVCPDLKVDLGLVKQQFDLENKFKPFTVEIVDSVEAYATMLRSIFDFSALKE
 LLSGPNRLKIRIDAMHGTVVYPYVKKILCEELGAPANSVNCVPLEDFGGHHPDNLTYAADLVETMKSGE
 HDFGAAFDGDGRNMILGKHGFFVNPSSVAVIAANIFSIPIYFQQTGVRGFARSMPTSGALDRVASATKI
 ALYETPTGWKFFGNLMDASKLSLCEESFSGTSDHIREKDGLWAVLAWLSILATRKQSVEDILKDHWQKY
 GRNFFTRYDYEEVEAEGANKMMKDLEALMFRSDFVGKQFSANDKVYTVKADNFEYSDPVDGSI SRNQGL
 RLIFTDGSRI VFRLSGTGSAGATIRLYIDSYEKDVAKINQDPQVMLAPLISIALKVSQQLQERTGRTAPT
 IT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg3219_d01.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_002633

ORF Size: 1686 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_002633.3](#)

RefSeq Size: 2487 bp

RefSeq ORF: 1689 bp

Locus ID: 5236

UniProt ID: [P36871](#)

Cytogenetics: 1p31.3

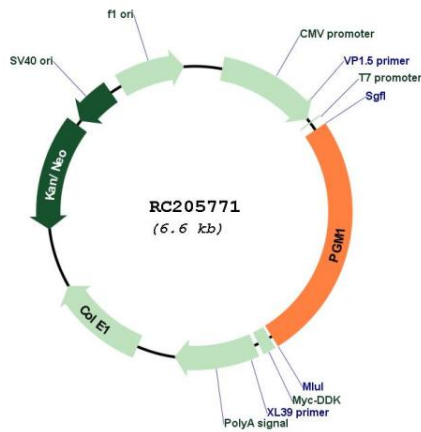
Domains: PGM_PMM, PGM_PMM_I, PGM_PMM_II, PGM_PMM_III

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

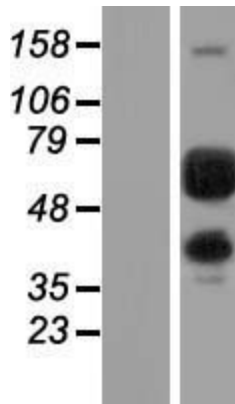
MW: 61.3 kDa

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]

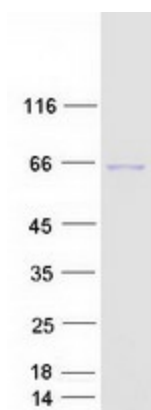
Product images:



Circular map for RC205771



Western blot validation of overexpression lysate (Cat# [LY419204]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205771 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PGM1 protein (Cat# [TP305771]). The protein was produced from HEK293T cells transfected with PGM1 cDNA clone (Cat# RC205771) using MegaTran 2.0 (Cat# [TT210002]).