

## Product datasheet for **RC201522**

### **PGM3 (NM\_015599) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PGM3 (NM_015599) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PGM3
Synonyms:	AGM1; IMD23; PAGM; PGM 3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC201522 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGATTTAGGTGCTATTACAAAATACTCAGCATTACACGCCAAGCCCAATGGACTGATCCTTCAATACG  
 GGACTGCTGGATTTCGAACGAAGGCAGAACATCTTGATCATGTCATGTTTCGCATGGGATTATTAGCTGT  
 CCTGAGGTCAAAACAGACAAAATCCACTATAGGAGTCATGGTAACAGCGTCCCACAACTCCTGAGGAAGAC  
 AATGGTGTAAAATTGGTTGATCCTTTGGGTGAAATGTTGGCACCATCCTGGGAGGAACATGCCACCTGTT  
 TAGCAAATGCTGAGGAACAAGATATGCAGAGAGTGCTTATTGACATCAGCGAGAAAGAAGCTGTGAATCT  
 GCAACAAGATGCCTTTGTAGTTATTGGTAGAGATACCAGGCCCAGCAGTGAGAACTTTCACAATCTGTA  
 ATAGATGGTGTGACTGTTCTAGGAGTCAATCCATGATTATGGCTTGTTAACACACCCCAGCTGCACT  
 ACATGGTGTATTGTCGAAACACGGGTGGCCGATATGGAAGGCAACTATAGAAGGTTACTACCAGAACT  
 CTCTAAGGCTTTTGTGGAACACCAAACAGGCTTCTTGCAGTGGAGATGAATACAGATCACTTAAGGTT  
 GACTGTGCAAATGGCATAGGGGCCCTGAAGCTAAGGGAAATGGAACACTACTTCTCACAGGGCCTGTCAG  
 TTCAGCTGTTAATGATGGGTCCAAGGGCAAACTCAATCATTTATGTGGAGCTGACTTTGTGAAAAGTCA  
 TCAGAACTCCACAGGAATGGAATTAAGTCCAATGAAAGATGCTGTTCTTTTGTGAGATGCAGAC  
 AGAATTGTTTATTACTACCATGATGCAGATGGCCACTTTCATCTCATAGATGGAGACAAGATAGCAACGT  
 TAATTAGCAGTTTCCTTAAAGAGCTCCTGGTGGAGATTGGAGAAAGTTTGAATATTGGTGTGTACAAA  
 TGCATATGCAAATGGAAGTTCAACACGGTATCTTGAAGAAGTTATGAAGGTACCTGTCTATTGCACTAAG  
 ACTGGTGTAAAACATTTGCACCACAAGGCTCAAGAGTTTGACATTGGAGTTTATTTTGAAGCAAATGGGC  
 ATGGCACTGCCTGTTTAGTACAGCTGTTGAAATGAAGATAAAACAATCAGCAGAAACAATGGAAGATAA  
 GAAAAGAAAAGCTGCTAAGATGCTTGAACACATTATTGACTTGTTTAAACCAGGCAGCTGGTGATGCTATT  
 TCTGACATGCTGGTGATTGAGGCAATCTTGGCTCTGAAGGGCTTGACTGTACAACAGTGGGATGCTCTCT  
 ATACAGATCTTCCAAACAGACAACCTTAAAGTTCAGGTTGCAGACAGGAGAGTTATTAGCACTACCAATGC  
 TGAAAGACAAGCAGTTACACCCCAGGATTACAGGAGGCAATCAATGACCTGGTGAAGAAGTACAAGCTT  
 TCTCGAGCTTTTGTCCGGCCCTCTGGTACAGAAGATGTCGTCGAGTATATGCAGAAGCAGACTCACAAG  
 AAAGTGCAGATCACCTTGACATGAAGTGAAGTGGCAGTATTTAGCTGGCTGGAGGAATTGGAGAAAG  
 GCCCAACCAGGTTTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC201522 protein sequence  
 Red=Cloning site Green=Tags(s)

MDLGAITKYSALHAKPNGLILQYGTAGFRTKAEHLDHVMFRMGLLAVLRSKQTKSTIGVMVTASHNPEED  
 NGVKLVDPDPLGEMLAPSWEEHATCLANAEEQDMQRVLIDISEKEAVNLQQDAFVVIIRDTRPSSEKLSQSV  
 IDGVTVLGGQFHDYGLLTPQLHYMVYCRNTGGRYGKATIEGYYQKLSKAFVELTKQASCSGDEYRSLKV  
 DCANGIGALKLREMEHYFSQGLSVQLFNDGSKGKLNHLGADFKVSHQKPPQMEIKSNERCCSFDGDAD  
 RIVYYYHDADGHFHLIDGDKIATLISSFLKELLVEIGESLNIQVQVAYANGSSTRYLEEVMKVPVYCTK  
 TGVKHLHHKAQEFDIGVYFEANGHTALFSTAVEMKIKQSAEQLEDKRRKAAKMLENIIDLFNQAAGDAI  
 SDMLVIEAILALKGLTVQQWDALYTDLPNRQLKVQVADRRVISTTNAERQAVTPPGLQEAINDLVKYYKL  
 SRAFVRPSGTEDVVRVYAEADSQESADHLAHEVSLAVFQLAGGIGERPQPGF

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6516\\_d10.zip](https://cdn.origene.com/chromatograms/mk6516_d10.zip)

**Restriction Sites:**

Sgfl-Mlul

Cloning Scheme:



ACCN: NM\_015599

ORF Size: 1626 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\\_015599.3](#)

RefSeq Size: 6107 bp

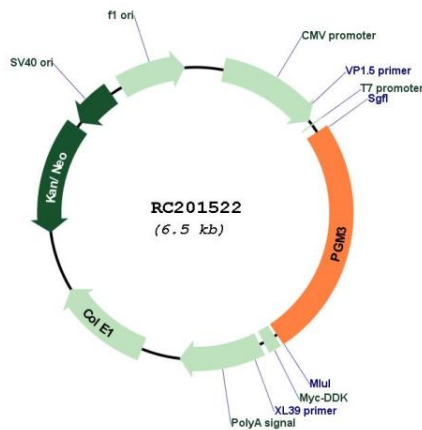
RefSeq ORF: 1629 bp

Locus ID: 5238

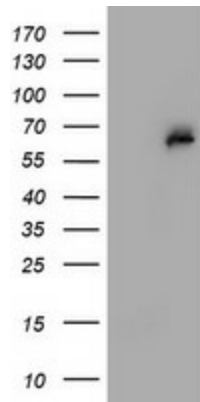
UniProt ID: [O95394](#)

**Cytogenetics:** 6q14.1  
**Domains:** PGM\_PMM, PGM\_PMM\_I  
**Protein Pathways:** Amino sugar and nucleotide sugar metabolism  
**MW:** 59.9 kDa  
**Gene Summary:** This gene encodes a member of the phosphohexose mutase family. The encoded protein mediates both glycogen formation and utilization by catalyzing the interconversion of glucose-1-phosphate and glucose-6-phosphate. A non-synonymous single nucleotide polymorphism in this gene may play a role in resistance to diabetic nephropathy and neuropathy. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Dec 2010]

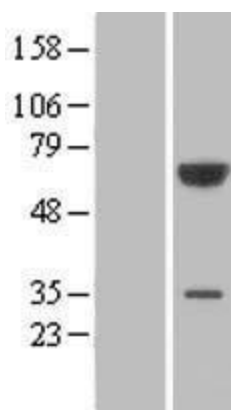
**Product images:**



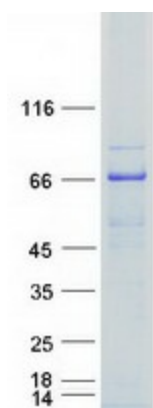
Circular map for RC201522



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PGM3 (Cat# RC201522, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PGM3 (Cat# [TA504859]). Positive lysates [LY414446] (100ug) and [LC414446] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY414446]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201522 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PGM3 protein (Cat# [TP301522]). The protein was produced from HEK293T cells transfected with PGM3 cDNA clone (Cat# RC201522) using MegaTran 2.0 (Cat# [TT210002]).