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Product datasheet for RC203979

PGM2 (NM_018290) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PGM2 (NM_018290) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PGM2
Synonyms:	MSTP006
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC203979 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGCTCCAGAAGGCAGCGGTCTAGACGAGGACGCCCGGCTGGACCAGGAGACCGCCCAGTGGCTGC
GCTGGGACAAGAATTCCTTAACTTTGGAGGCAGTGAAACGACTAATAGCAGAAGGTAATAAAGAAGAACT
ACGAAAATGTTTTGGGGCCCGAATGGAGTTTGGGACAGCTGGCCTCCGAGCTGCTATGGGACCTGGAATT
TCTCGTATGAATGACTTGACCATCATCCAGACTACACAGGGATTTTGCAGATACCTGGAAAAACAATTCA
GTGACTTAAAGCAGAAAGGCATCGTGATCAGTTTTGACGCCCGAGCTCATCCATCCAGTGGGGGTAGCAG
CAGAAGGTTTGCCCGACTTGCTGCAACCACATTTATCAGTCAGGGGATTCCTGTGTACCTCTTTTCTGAT
ATAACGCCAACCCCCTTTGTGCCCTTCACAGTATCACATTTGAAACTTTGTGCTGGAATCATGATAACTG
CATCTCACAATCCAAAGCAGGATAATGGTTATAAGGTCTATTGGGATAATGGAGCTCAGATCATTTCTCC
TCACGATAAAGGGATTTCTCAAGCTATTGAAGAAAATCTAGAACCGTGGCCTCAAGCTTGGGACGATTCT
TTAATTGATAGCAGTCCACTTCTCCACAATCCGAGTGCTTCCATCAATAATGACTACTTTGAAGACCTTA
AAAAGTACTGTTTCCACAGGAGCGTGAACAGGGAGACAAAGGTGAAGTTTGTGCACACCTCTGTCCATGG
GGTGGGTCATAGCTTTGTGCAGTCAGCTTTCAAGGCTTTTGACCTTGTTCCTCCTGAGGCTGTTCCTGAA
CAGAAAGATCCGGATCCTGAGTTTCCAACAGTGAAATACCCGAATCCCGAAGAGGGGAAAGGTGTCTTGA
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TGTTGTCCAGCACCGTCTCCTCCAAAATCTTGCGGGCCATTGCCTTAAAGGAAGGTTTTCATTTTGAGGA
AACATTAACTGGCTTTAAGTGGATGGGAAACAGAGCCAAACAGCTAATAGACCAGGGGAAAACTGTTTTA
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CTGTCATAAGTGCAGAGTTGGCTAGCTTCCTAGCAACCAAGAATTTGTCTTTGTCTCAGCAACTAAAGGC
CATTTATGTGGAGTATGGCTACCATATTACTAAAGCTTCCTATTTTATCTGCCATGATCAAGAAACCATT
AAGAAATTATTTGAAAACCTCAGAAACTACGATGGAAAAAATAATTATCCAAAAGCTTGTGGCAAATTTG
AAATTTCTGCCATTAGGGACCTTACAACTGGCTATGATGATAGCCAACCTGATAAAAAAGCTGTTCTTCC
CACTAGTAAAAGCAGCCAAATGATCACCTTCACCTTTGCTAATGGAGGCGTGGCCACCATGCGCACCAGT
GGGACAGAGCCCAAAATCAAGTACTATGCAGAGCTGTGTGCCCCACCTGGGAACAGTGATCCTGAGCAGC
TGAAGAAGGAACTGAATGAACTGGTCAGTGCTATTGAAGAACATTTTTTCCAGCCACAGAAGTACAATCT
GCAGCCAAAAGCAGAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC203979 protein sequence
Red=Cloning site Green=Tags(s)

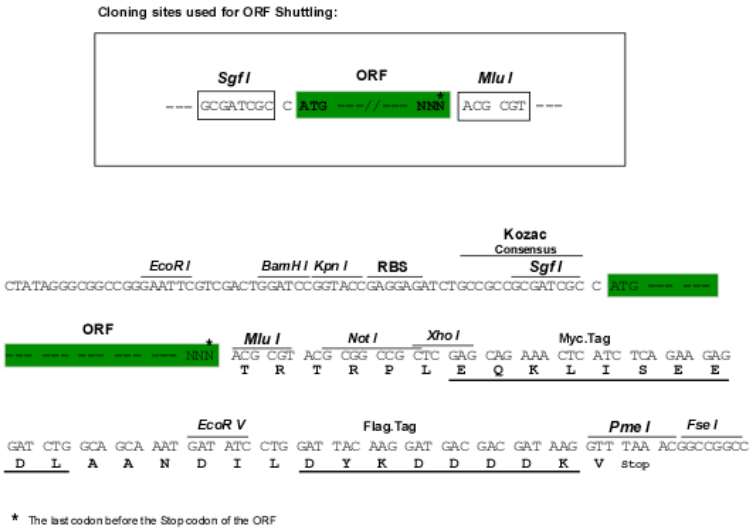
MAAPEGSGLDEDARLDQETAQWLRWDKNSLTLEAVKRLIAEGNKEELRKCFGARMEFGTAGLRAAMGPGI
SRMNDLTIIQTTQGFCRYLEKQFSDLKQKGIVISFDARAHPSSGGSSRRFARLAATTFISQGIPVYLFSD
ITPTPFVPFTVSHLKLCAGIMITASHNPKQDNGYKVYWDNGAQIISPHDKGISQAIEENLEPWPQAWDDS
LIDSSPLLHNPSASINNDYFEDLKKYCFHRSVNRETKVKFVHTSVHGVGHSFVQSAFKAFDLVPPEAVPE
QKDPDPEFPTVKYPNPEEGKGVLTLSFALADKTKARIVLANDPDADRLAVAEKQDSGEWRVFSGNELGAL
LGWWLFTSWKEKNQDRSALKDTYMLSSTVSSKILRAIALKEGFHFEETLTGFKWMGNRAKQLIDQGKTVL
FAFEEAIGYMCCPFVLDKDGVSAAVISAELASFLATKNLSLSQQLKAIYVEYGYHITKASYFICHDQETI
KKLFENLRNYDGKNNYPKACGKFEISAIRDLTTGYDDSQPDKKAVLPTSKSSQMITFTFANGGVATMRTS
GTEPKIKYYAELCAPPGNSDPEQLKKELNELVSAIEEHFFQPQKYNLQPKAD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6566_d08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_018290

ORF Size: 1836 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.

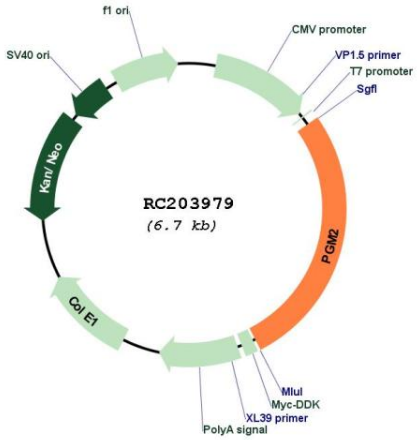
Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_018290.4

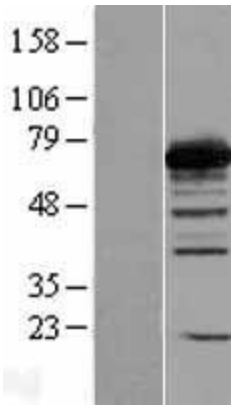
RefSeq Size: 3238 bp

RefSeq ORF:	1839 bp
Locus ID:	55276
UniProt ID:	Q96G03
Cytogenetics:	4p14
Domains:	PGM_PMM_I, PGM_PMM_II
Protein Pathways:	Amino sugar and nucleotide sugar metabolism, Galactose metabolism, Glycolysis / Gluconeogenesis, Metabolic pathways, Pentose phosphate pathway, Starch and sucrose metabolism
MW:	68.3 kDa
Gene Summary:	Catalyzes the conversion of the nucleoside breakdown products ribose-1-phosphate and deoxyribose-1-phosphate to the corresponding 5-phosphopentoses. May also catalyze the interconversion of glucose-1-phosphate and glucose-6-phosphate. Has low glucose 1,6-bisphosphate synthase activity.[UniProtKB/Swiss-Prot Function]

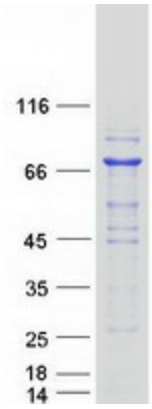
Product images:



Circular map for RC203979



Western blot validation of overexpression lysate (Cat# [LY413138]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203979 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PGM2 protein (Cat# [TP303979]). The protein was produced from HEK293T cells transfected with PGM2 cDNA clone (Cat# RC203979) using MegaTran 2.0 (Cat# [TT210002]).