

Product datasheet for **RC200701**

PGAM2 (NM_000290) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PGAM2 (NM_000290) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PGAM2
Synonyms:	GSD10; PGAM-M; PGAMM
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC200701 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCAATCACCGCCTCGTGATGGTCCGGCACGGCGAGAGCACATGGAACCAGGAGAACCCTTTCTGTG
GCTGGTTCGATGCAGAGCTGAGTGAAAAGGGGACCGAGGAGCCAAGCGGGGAGCCAAGGCCATCAAGGA
TGCCAAGATGGAGTTTGACATCTGCTACACGTCAAGCGGGCCATCCGCACCTCTGGGCCATC
CTGGACGGCACGGACCAGATGTGGCTGCCTGTGGTGCGCACTTGGCGCCTCAATGAGCGGCATTACGGGG
GCCTCACAGGCCCAACAAGGCAGAAACGGCCCAAGCACGGGGAGGAGCAGGTGAAGATCTGGAGGCG
CTCCTTCGACATCCCGCCGCCCGATGGACGAGAAGCACCCCTACTACAACCTCATTAGCAAGGAGCGT
CGGTACGCAGGCCTGAAGCCCGGGAACTCCCACTGCGAGAGCCTCAAGGACACCATTGCCCGGGCCC
TGCCCTTCTGGAACGAGGAGATTGTTCCCCAGATCAAGGCCGGCAAGCGAGTGCTCATTGCAGCCCAAGG
GAACAGCTGCGGGGCATTGTCAAGCACCTGGAAGGGATGTCAGACCAGGCGATCATGGAGCTGAACCTG
CCCACGGGGATCCCATTTGTGTATGAGCTGAACAAGGAGCTGAAGCCACCAAGCCCATGCAGTTCTCTGG
GTGATGAGGAAACGGTGCGGAAGGCCATGGAGGCTGTGGCTGCCAGGGCAAGGCCAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC200701 protein sequence
Red=Cloning site Green=Tags(s)

MATHRLVMVRHGESTWNQENRF CGWFD AELSEKGT EEA KRGA KA IKDAKMEFDICYT SVLKRAIRTLWAI
 LDGTDQM WLPVVRTWRLNERHYGGLTGLNKAETA AAKHGEEQVKIWRRSFDIPPPMDEKHPYYNSISKER
 RYAGLKPGE LPTCESLKD TIARALPFWNEEIVPQIKAGKRVLIAAHGNSLRGIVKHLEGMSDQAIMELNL
 PTGIPIVYELNKELKPTKPMQFLGDEETVRKAMEAVAAQ GKAK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6394_d09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_000290

ORF Size: 759 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_000290.4](#)

RefSeq Size: 888 bp

RefSeq ORF: 762 bp

Locus ID: 5224

UniProt ID: [P15259](#)

Cytogenetics: 7p13

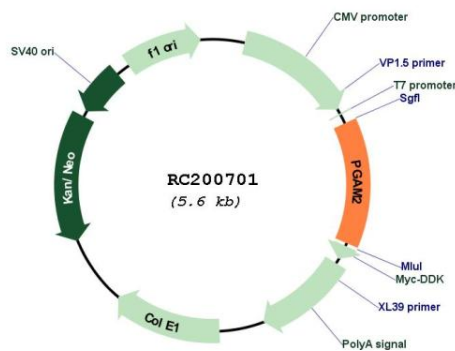
Protein Families: Druggable Genome

Protein Pathways: Glycolysis / Gluconeogenesis, Metabolic pathways

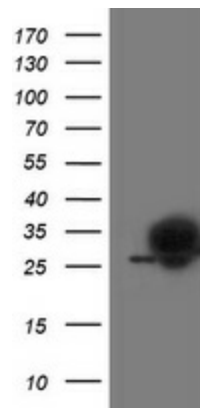
MW: 28.8 kDa

Gene Summary: Phosphoglycerate mutase (PGAM) catalyzes the reversible reaction of 3-phosphoglycerate (3-PGA) to 2-phosphoglycerate (2-PGA) in the glycolytic pathway. The PGAM is a dimeric enzyme containing, in different tissues, different proportions of a slow-migrating muscle (MM) isozyme, a fast-migrating brain (BB) isozyme, and a hybrid form (MB). This gene encodes muscle-specific PGAM subunit. Mutations in this gene cause muscle phosphoglycerate mutase deficiency, also known as glycogen storage disease X. [provided by RefSeq, Sep 2009]

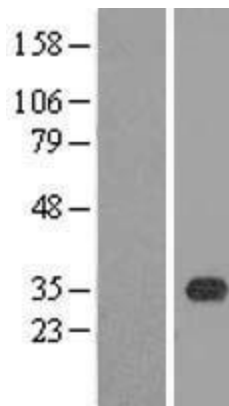
Product images:



Circular map for RC200701



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PGAM2 (Cat# RC200701, 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-PGAM2(Cat# [TA503425]). Positive lysates [LY424823] (100ug) and [LC424823] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY424823]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200701 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PGAM2 protein (Cat# [TP300701]). The protein was produced from HEK293T cells transfected with PGAM2 cDNA clone (Cat# RC200701) using MegaTran 2.0 (Cat# [TT210002]).