OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC200702

PFKM (NM_000289) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PFKM (NM_000289) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PFKM
Synonyms:	ATP-PFK; GSD7; PFK-1; PFK-A; PFK1; PFKA; PFKX; PPP1R122
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

View online »

ORF Nucleotide Sequence:

>RC200702 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGACCCATGAAGAGCACCATGCAGCCAAAACCCTGGGGATTGGCAAAGCCATTGCTGTCTTAACCTCTG
GTGGAGATGCCCAAGGTATGAATGCTGCTGTCAGGGCTGTGGTTCGAGTTGGTATCTTCACCGGTGCCCG
TGTCTTCTTTGTCCATGAGGGTTATCAAGGCCTGGTGGATGGTGGAGATCACATCAAGGAAGCCACCTGG
GAGAGCGTTTCGATGATGCTTCAGCTGGGAGGCACGGTGATTGGAAGTGCCCGGTGCAAGGACTTTCGGG
AACGAGAAGGACGACTCCGAGCTGCCTACAACCTGGTGAAGCGTGGGATCACCAATCTCTGTGTCATTGG
GGGTGATGGCAGCCTCACTGGGGCTGACACCTTCCGTTCTGAGTGGAGTGACTTGTTGAGTGACCTCCAG
AAAGCAGGTAAGATCACAGATGAGGAGGCTACGAAGTCCAGCTACCTGAACATTGTGGGCCTGGTTGGGT
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AATCTGGTGGTTAAGCGTCTGGGATATGACACCCGGGTTACTGTCTTGGGGCATGTGCAGAGGGGTGGGA
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GACCCCAGATACCCCAGCCTGTGTAGTGAGCCTCTCTGGTAACCAGGCTGTGCGCCTGCCCCTCATGGAA
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CAGGGCCTTGTCATCATTGGGGGCTTTGAGGCTTACACAGGGGGCCTGGAACTGATGGAGGGCAGGAAGC
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CTGAGCTGAAGGACCAGACAGATTTTGAGCATCGAATCCCCAAGGAACAGTGGTGGCTGAAACTGAGGCC
CATCCTCAAAATCCTAGCCAAGTACGAGATTGACTTGGACACTTCAGACCATGCCCACCTGGAGCACATC
ACCCGGAAGCGGTCCGGGGAAGCTGCCGTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC200702 protein sequence
Red=Cloning site Green=Tags(s)

MTHEEHHAAKTLGIGKAIAVLTSGGDAQGMNAAVRAVVRVGIFTGARVFFVHEGYQGLVDGGDHIKEATW
ESVSMMLQLGGTVIGSARCKDFREREGRLRAAYNLVKRGITNLCVIGGDGSLTGADTFRSEWSDLLSDLQ
KAGKITDEEATKSSYLNIVGLVGSIDNDFCGTDMTIGTDSALHRIMEIVDAITTTAQSHQRTFVLEVMGR
HCGYLALVTSLSCGADWVFIPECPPDDDWEEHLCRRLSETRTRGSRLNIIIVAEGAIDKNGKPITSEDIK
NLVVKRLGYDTRVTVLGHVQRGGTPSAFDRILGSRMGVEAVMALLEGTPDTPACVVSLSGNQAVRLPLME
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STVRIGLIQGNRVLVVHDGFEGLAKGQIEEAGWSYVGGWTGQGGSKLGTKRTLPKKSFEQISANITKFNI
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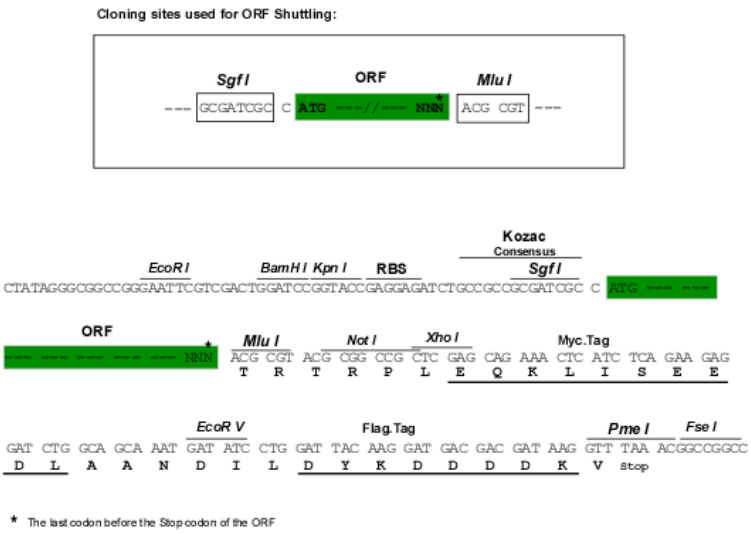
AGTKRRVFIIETMGGYCGYLATMAGLAAGADAAYIFEEPFTIRDLQANVEHLVQKMKTTVKRGLVLRNEK
CNENYTTDFIFNLYSEEGKGIFDSRKNVLGHMQQGGSPTPFDRNFATKMGAKAMNWMSGKIKESYRNGRI
FANTPDSGCVLGMRKRALVFQPVAELKDQTDFEHRIPKEQWWLKLRPILKILAKYEIDLDTSDHAHLEHI
TRKRSGEAAV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6209_g10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000289

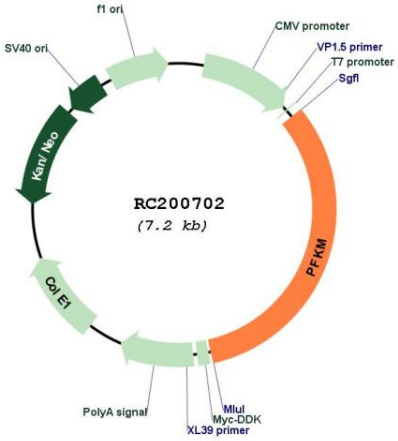
ORF Size: 2340 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

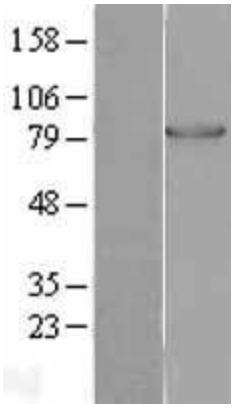
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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_000289.6
RefSeq Size:	3234 bp
RefSeq ORF:	2343 bp
Locus ID:	5213
UniProt ID:	P08237
Cytogenetics:	12q13.11
Domains:	PFK
Protein Families:	Druggable Genome
Protein Pathways:	Fructose and mannose metabolism, Galactose metabolism, Glycolysis / Gluconeogenesis, Metabolic pathways, Pentose phosphate pathway
MW:	85.2 kDa
Gene Summary:	Three phosphofructokinase isozymes exist in humans: muscle, liver and platelet. These isozymes function as subunits of the mammalian tetramer phosphofructokinase, which catalyzes the phosphorylation of fructose-6-phosphate to fructose-1,6-bisphosphate. Tetramer composition varies depending on tissue type. This gene encodes the muscle-type isozyme. Mutations in this gene have been associated with glycogen storage disease type VII, also known as Tarui disease. Alternatively spliced transcript variants have been described. [provided by RefSeq, Nov 2009]

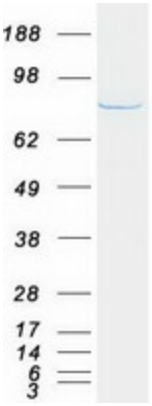
Product images:



Circular map for RC200702



Western blot validation of overexpression lysate (Cat# [LY424822]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200702 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PFKM protein (Cat# [TP300702]). The protein was produced from HEK293T cells transfected with PFKM cDNA clone (Cat# RC200702) using MegaTran 2.0 (Cat# [TT210002]).