

## Product datasheet for **SC329130**

### PFKM (NM\_001166687) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PFKM (NM_001166687) Human Untagged Clone
Tag:	Tag Free
Symbol:	PFKM
Synonyms:	ATP-PFK; GSD7; PFK-1; PFK-A; PFK1; PFKA; PFKX; PPP1R122
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >NCBI ORF sequence for NM\_001166687, the custom clone sequence may differ by one or more nucleotides

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ATGACCCATGAAGAGCACCATGCAGCCAAAACCCTGGGGATTGGCAAAGCCATTGCTGTC
TTAACCTCTGGTGGAGATGCCCAAGGTATGAATGCTGCTGTCAGGGCTGTGGTTCGAGTT
GGTATCTTCACCGGTGCCCGTGTCTTTGTCCATGAGGGTTATCAAGGCCTGGTGGAT
GGTGGAGATCACATCAAGGAAGCCACCTGGGAGAGCGTTTCGATGATGCTTCAGTGGGA
GGCACGGTGATTGGAAGTGCCCGGTGCAAGGACTTTCGGGAACGAGAAGGACGACTCCGA
GCTGCCTACAACCTGGTGAAGCGTGGGATCACCAATCTCTGTGTCATTGGGGGTGATGGC
AGCCTCACTGGGGCTGACACCTCCGTTCTGAGTGGAGTGACTTGTTGAGTGACCTCCAG
AAAGCAGGTAAGATCACAGATGAGGAGGCTACGAAGTCCAGCTACCTGAACATTGTGGGC
CTGGTTGGGTCAATTGACAATGACTTCTGTGGCACCGATATGACCATTGGCACTGACTCT
GCCCTGCATCGGATCATGGAAATGTAGATGCCATCACTACCACTGCCCAGAGCCACCAG
AGGACATTTGTGTTAGAAGTAATGGGCCGCCACTGTGGATACCTGGCCCTTGTACCTCT
CTGTCCTGTGGGCGGACTGGGTTTTTATTCTGAATGCCACCAGATGACGACTGGGAG
GAACACCTTTGTGCGGACTCAGCGAGACAAGGACCCGTGGTTCTCGTCTCAACATCATC
ATTGTGGCTGAGGGTGCAATTGACAAGAATGAAAACCAATCACCTCAGAAGACATCAAG
AATCTGGTGGTTAAGCGTCTGGGATATGACACCCGGGTTACTGTCTTGGGGCATGTGCAG
AGGGGTGGGACGCCATCAGCCTTTGACAGAATTCTGGGCAGCAGGATGGGTGTGGAAGCA
GTGATGGCACTTTTGGAGGGGACCCAGATACCCAGCCTGTGTAGTGAGCCTCTCTGGT
AACCAGGCTGTGCGCCTGCCCTCATGGAATGTGTCCAGGTGACCAAAGATGTGACCAAG
GCCATGGATGAGAAGAAATTTGACGAAGCCCTGAAGCTGAGAGGCCGGAGCTTCATGAAC
AACTGGGAGGTGTACAAGCTTCTAGCTCATGTCCAGACCCCGGTATCTAAGAGTGGTTCCG
CACACAGTGGCTGTGATGAACGTGGGGGCTCCGGCTGCAGGCATGAATGCTGCTGTTCCG
TCCACTGTGAGGATTGGCCTTATCCAGGGCAACCGAGTGCTCGTTGTCCATGATGGTTTC
GAGGGCCTGGCCAAGGGGCAGATAGAGGAAGCTGGCTGGAGCTATGTTGGGGCTGGACT
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ATCAGTGCCAATATAACTAAGTTAACATTAGGGCCTTGTATCATTGGGGGCTTTGAG
GCTTACACAGGGGCTGGAAGTGTGAGGGGCAGGAAGCAGTTTGTGAGCTCTGCATC
CCATTTGGTCACTTCTGCTACAGTCTCCAACAATGTCCCTGGCTCAGACTTCAGCGTT
GGGGCTGACACAGCACTCAATACTATCTGCACAACCTGTGACCGCATCAAGCAGTCAGCA
GCTGGCACCAAGCGTCGGGTGTTTATCATTGAGACTATGGGTGGCTACTGTGGCTACCTG
GCTACCATGGCTGGACTGGCAGCTGGGGCCGATGCTGCCTACATTTTGGAGAGCCCTTC
ACCATTGAGACCTGCAGGCAAATGTTGAACATCTGGTGCAAAAGATGAAAACAACCTGTG
AAAAGGGGCTTGGTGTTAAGGAATGAAAAGTGCAATGAGAACTATACCACTGACTTCATT
TTCAACCTGTA CTCTGAGGAGGGGAAGGGCATCTTCGACAGCAGGAAGAATGTGCTTGGT
CACATGCAGCAGGGTGGGAGCCCAACCCATTTGATAGGAATTTTGCCACTAAGATGGGC
GCCAAGGCTATGAACTGGATGTCTGGGAAAATCAAAGAGAGTTACCGTAATGGGCGGATC
TTTGCCAACTCCAGATTCGGGCTGTGTTCTGGGGATGCGTAAGAGGGCTCTGGTCTTC
CAACCACTGGCTGAGCTGAAGGACCAGACAGATTTTGGCATCGAATCCCAAGGAACAG
TGGTGGCTGAAACTGAGGCCATCCTCAAATCCTAGCCAAGTACGAGATTGACTTGGAC
ACTTCAGACCATGCCACCTGGAGCACATCACCCGGAAGCGGTCCGGGAAGCTGCCGTC
TAA
    
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**Restriction Sites:** Please inquire  
**ACCN:** NM\_001166687

<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	<p>This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.</p>
<b>Components:</b>	<p>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).</p>
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<p><a href="#">NM_001166687.1</a>, <a href="#">NP_001160159.1</a></p>
<b>RefSeq Size:</b>	<p>3088 bp</p>
<b>RefSeq ORF:</b>	<p>2343 bp</p>
<b>Locus ID:</b>	<p>5213</p>
<b>UniProt ID:</b>	<p><a href="#">P08237</a></p>
<b>Cytogenetics:</b>	<p>12q13.11</p>
<b>Protein Families:</b>	<p>Druggable Genome</p>
<b>Protein Pathways:</b>	<p>Fructose and mannose metabolism, Galactose metabolism, Glycolysis / Gluconeogenesis, Metabolic pathways, Pentose phosphate pathway</p>

**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]

Transcript Variant: This variant (2, also known as type A) differs in the 5' UTR, lacks a portion of the 5' coding region, and initiates translation at a downstream start codon, compared to variant 1. The encoded isoform (2) is shorter than isoform 1. Variants 2, 3, 4, 12, 13, and 14 encode the same isoform (2).