

Product datasheet for **RC224599**

PFKFB1 (NM_002625) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PFKFB1 (NM_002625) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PFKFB1
Synonyms:	F6PK; HL2K; PFRX
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC224599 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCTCCAGAGATGGGAGAGCTCACCCAAACCAGGTTGCAGAAGATCTGGATTCCACACAGCAGCGGCA
 GCAGCAGGCTGCAACGGAGAAGGGGCTCATCCATACCCAGTTTACCAATTCCCCACAATGGTGATCAT
 GGTGGGTTTACCAGCTCGAGGCAAGACCTATATCTCCACAAAGCTCACACGATATCTCAACTGGATAGGA
 ACACCAACTAAAGTGTAAATTTAGGCCAGTATCGACGAGAGGCAGTGAGCTACAAGAACTATGAATTCT
 TTCTTCCAGACAACATGGAAGCCCTGCAATCAGGAAGCAGTGCGCCCTGGCAGCCCTGAAGGATGTTCA
 CAACTATCTCAGCCATGAGGAAGGTCATGTTGCGGTTTTTGTATGCCACCAACTACCAGAGAACGACGG
 TCACTGATCCTGCAGTTTGCAAAAGAACATGGTTACAAGGTGTTTTTTCATTGAGTCCATTGTAATGACC
 CTGGCATAAATGCAGAAAACATCAGGCAAGTAAAATTGGCAGCCCTGATTATATAGACTGTGACCGGGA
 AAAGTTCTGGAAGACTTCTAAAGAGAATTGAGTGCTATGAGGTCAACTACCAACCCTGGATGAGGAA
 CTGGACAGCCACCTGTCCATACATCAAGATCTTCGACGTGGGCACACGCTACATGGTGAACCGAGTGCAGG
 ATCACATCCAGAGCCGCACAGTCTACTACCTCATGAATATCCATGTACACCTCGCTCCATCTACCTTTG
 CCGACATGGCGAGAGTGAACATCAGAGGCCGATCGGAGGTGACTCTGGCCTCTCAGTTCGCGGC
 AAGCAGTATGCCTATGCCTGGCCAACCTCATTAGTCCCAGGGCATCAGCTCCCTGAAGGTGTGGACCA
 GTCACATGAAGAGGACCATCCAGACAGCTGAGGCCCTGGGTGTCCCCATGAGCAGTGGAAAGGCCCTGAA
 TGAGATTGATGCGGGTGTCTGTGAGGAGATGACCTATGAAGAAATCCAGGAACATTACCTGAAGAAATTT
 GCACTGCGAGACCAAGATAAATATCGCTACCGCTATCCCAAGGGAGAGTCTATGAGGATCTGGTTCAGC
 GTCTGGAGCCAGTGATAATGGAGCTAGAACGACAGGAGAATGTACTGGTATCTGCCACCGCTGTCAT
 CGGGTGCCTCCTGGCCTATTTCTGGATAAAAGTTCAGATGAGCTTCCATATCTCAAGTGCCTCTGCAC
 ACAGTGCTCAAACCTACTCCTGTGGCTTATGGCTGCAAAGTGAATCCATCTACCTGAATGTGGAGGCCG
 TGAACACACACCGGGAGAAGCCTGAGAATGTGGACATCACCCGGGAACCTGAGGAAGCCCTGGATACTGT
 CCCAGCCCACTAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC224599 protein sequence
 Red=Cloning site Green=Tags(s)

MSPEMGELTQTRLQKIWIPIHSSGSSRLQRRRGSSIPQFTNSPTMVMVGLPARGKTYISTKLTRYLNWIG
 TPTKVFNLGQYRREAVSYKNYEFFLPDNMEALQIRKQCALAALKDVHNYLSHEEGHVAVFDATNTTRERR
 SLILQFAKEHGKVFVFFIESICNDPGIIAENIRQVKGSPDYIDCDREKVLDFLKRIECYEVNYQPLDEE
 LDHLSYIKIFDVGTRYMVNRVQDHIQSRVYVYLMNIHVTPRSIYLCRHGESELNIRGRIGGDSGLSVRG
 KQYAYALANFIQSQGISSLKVVWTSMMKRTIQTAELGVPHEQWKALNEIDAGVCEEMTYEEIQEHYPEEF
 ALRDQDKYRYRYPKGESYEDLVQRLEPVMELERQENVLVICHQAVMRCLLAYFLDKSSDELPLYLKCPLH
 TVLKLTPVAYGCKVESIYLNVEAVNTHREKPEVNDITREPEEALDTPAHY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6554_e07.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

ACCN: NM_002625

ORF Size: 1413 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_002625.4](#)
RefSeq Size: 1756 bp

RefSeq ORF: 1416 bp

Locus ID: 5207

UniProt ID: [P16118](#)
Cytogenetics: Xp11.21

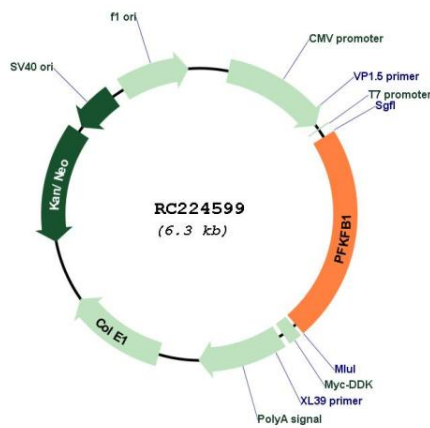
Protein Families: Druggable Genome

Protein Pathways: Fructose and mannose metabolism

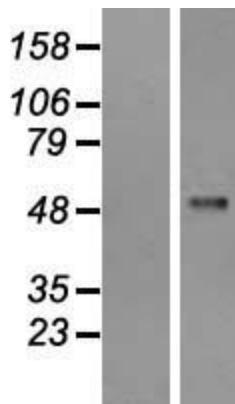
MW: 54.7 kDa

Gene Summary: This gene encodes a member of the family of bifunctional 6-phosphofructo-2-kinase:fructose-2,6-biphosphatase enzymes. The enzyme forms a homodimer that catalyzes both the synthesis and degradation of fructose-2,6-biphosphate using independent catalytic domains. Fructose-2,6-biphosphate is an activator of the glycolysis pathway and an inhibitor of the gluconeogenesis pathway. Consequently, regulating fructose-2,6-biphosphate levels through the activity of this enzyme is thought to regulate glucose homeostasis. Multiple alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Nov 2012]

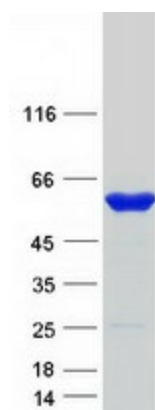
Product images:



Circular map for RC224599



Western blot validation of overexpression lysate (Cat# [LY419200]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224599 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PFKFB1 protein (Cat# [TP324599]). The protein was produced from HEK293T cells transfected with PFKFB1 cDNA clone (Cat# RC224599) using MegaTran 2.0 (Cat# [TT210002]).