

Product datasheet for **RC211329**

PFKFB2 (NM_006212) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PFKFB2 (NM_006212) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PFKFB2
Synonyms:	PFK-2/FBPase-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC211329 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCTGGGGCATCTTCCTCAGAACAGAACAAACACAGCTATGAAACAAAACCCAAATCTTCGAATGT
 CAGAGAAGAAATGTTTCATGGGCCTCTACATGACCAACTCCCGACTCTGATCGTTATGATTGGTTTGCC
 AGCCCGGGTAAAACCTACGTGTCCAAGAACTAACACGCTACCTCAACTGGATTGGAGTCCCCACCAAA
 GTGTTTAACTTTGGGGTGTATCGGCGTGAAGCAGTCAAGTCTATAAGTCTACGACTTCTTTCCGCATG
 ACAATGAGGAGCCATGAAGATCCGCAACAGTGTGCTCTGGTGGCGCTGGAAGATGTTAAGGCGTATCT
 CACTGAGGAGAATGGTCAGATTGCGGTGTTTGATGCCACCAATACAACCCGGGAGAGGAGGGACATGATT
 TTGAACTTTGTGAACAGAATTCCTTCAAGGTATCTTTGTGGAATCCGTCTGTGATGATCTGTATGTC
 TTGCTGCCAATATCTGGAGTTAAGGTATCAAGCCCTGACTATCCTGAAAGGAATAGAGAGAACGTGAT
 GGAGGACTTCTGAAGAGAATTGAATGCTACAAGTTACCTACCGACCTTTGACCCAGACAACATGAC
 AAGGATCTTTCTTTCATCAAGGTGATAAACGTGGGCCAGCGATTTTTAGTCAACAGAGTCCAGGACTACA
 TCCAGAGCAAGATAGTCTACTACCTCATGAATATCCACGTCCAGCCTCGCACCATTTACCTTTGCCGGCA
 TGGAGAAAGCGAGTTCAATCTCTTGGGGAAGATTGGGGTGACTCTGGCCTCTCGGTGCGGGGAAAGCAG
 TTTGCCAAAGCTTAAGGAAATTTCTGGAGGAACAGGAAATAACAGACCTCAAAGTGTGGACAAGCCAGT
 TGAAGAGGACCATACAGACTGCTGAATCTCTCGGGTGCCTATGAGCAGTGAAGATTCTGAATGAGAT
 TGATGCTGGTGTGTGTAAGAGATGACCTATGCAGAGATTGAGAAACGGTACCCAGAAGAGTTTGCACCT
 CGAGATCAAGAGAAGTATCTGTATCGATATCCTGGTGGGAGTCATACCAGGACCTGGTGCAGCGCTGG
 AGCCTGTATCATGGAGCTGGAACGTCAAGGCAATGTCCTCGTCATCTCCACCAGGCTGTCATGCGCTG
 CCTCCTGGCCTACTTCTTGGATAAGGGCGCAGATGAGCTACCATACTTGAGATGCCCTCTCCATACCATC
 TTCAAACCTACTCTGTGGCCTATGGGTGCAAAGTGGAACAATTAACCTAACGTGGAGGCTGTGAACA
 CGCACCGTGACAAGCCAATAACAACCTCCCAAGAACCAACCCCTGTAAGGATGAGAAGGAACAGCTT
 TACGCCTCTGTCCAGTTCAATACAATAAGGCGTCCAAGAAATTACAGTGTGGGAGCCGGCCCTCAAG
 CCCCTCAGCCCTCTCCGTGCCAGGACATGCAAGAAGGGGCCGAC

**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA**

Protein Sequence:

>RC211329 protein sequence
 Red=Cloning site Green=Tags(s)

MSGASSSEQNNNSYETKTPNLRMSEKKCSWASYMTNSPTLIVMIGLPARGKTYVSKKLTRYLNWIGVPTK
 VFNLGVYRREAVKSYKSYDFFRHDNEEAMKIRKQCALVALEDVKAYL TEENGQIAVF DATNTTTRRRDMI
 LNF AEQNSFKVFFVESVCDDPDVIAANILEVKVSPDYPERNRENVMEDFLKRIECYKVTYRPLDPDNYD
 KDL SFIKVINVGQRFLVNRVQDYIQSKI VYYLMNIHVQPRTIYL CRHGESEFNLLGKIGGDSGLSVRGKQ
 FAQALRKFL EEQEITDLKVWTSQ LKRTIQTAESLGVPEQWKILNEIDAGVCEEMTYAEIEKRYPEEFAL
 RDQEKYL YRYPGGESYQDLVQRLEPVMELERQGNVLVISHQAVMRCLLAYFLDKGADELPYLRCLPHTI
 FK LTPVAYGCKVETIKLNVEAVNTHRDKPTNFPKNQTPVRRRNSFTPLSSSNTIRRPRNYSVGSRPLK
 PLSPLRAQDMQEGAD

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6370_a06.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_006212

ORF Size: 1515 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_006212.2](#), [NP_006203.2](#)

RefSeq Size: 7073 bp

RefSeq ORF: 1518 bp

Locus ID: 5208

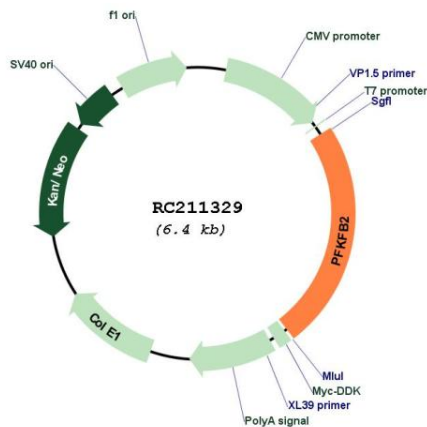
UniProt ID: [O60825](#)

Cytogenetics: 1q32.1

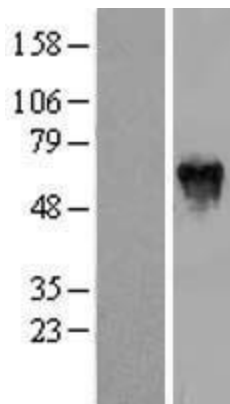
Domains: PGAM, 6PF2K
Protein Families: Druggable Genome
Protein Pathways: Fructose and mannose metabolism
MW: 58.5 kDa

Gene Summary: The protein encoded by this gene is involved in both the synthesis and degradation of fructose-2,6-bisphosphate, a regulatory molecule that controls glycolysis in eukaryotes. The encoded protein has a 6-phosphofructo-2-kinase activity that catalyzes the synthesis of fructose-2,6-bisphosphate, and a fructose-2,6-biphosphatase activity that catalyzes the degradation of fructose-2,6-bisphosphate. This protein regulates fructose-2,6-bisphosphate levels in the heart, while a related enzyme encoded by a different gene regulates fructose-2,6-bisphosphate levels in the liver and muscle. This enzyme functions as a homodimer. Two transcript variants encoding two different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC211329



Western blot validation of overexpression lysate (Cat# [LY416776]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211329 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).