

Product datasheet for **RC201573**

PFKFB4 (NM_004567) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PFKFB4 (NM_004567) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PFKFB4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC201573 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCGTCCCCACGGGAATTGACACAGAACCCCTGAAGAAGATCTGGATGCCATACAGCAATGGGCGGC
 CCGCTCTGCACGCTTGCCAGCGCGGTGTGTGCATGACCAACTGCCAACTCTCATTGTGATGGTGGCCCT
 GCCCGCCAGGGGCAAGACCTACATCTCCAAGAAGCTGACTCGATACCTGAACTGGATTGGTGTGCCCACT
 CGGGAGTCAATGTTGGCCAGTATCGCCGGGACGTGGTCAAGACCTACAAATCTTTTGAATTTTTCTCC
 CCGACAATGAAGAGGGCCTGAAAATCAGGAAGCAGTGTGCCCTGGCAGCCCTCCGTGACGTCCGGCGGTT
 CCTTAGTGAGGAGGGGGACATGTGGCGGTTTTTGTATGCCACAAACACCACCCGAGAACGGAGAGCGACC
 ATCTTTAATTTTGGAGACAGAATGGCTACAAGACCTTTTTTGTGAGTCCATCTGTGTGGATCCTGAGG
 TCATAGCTGCCAACATCGTGAAGTAACTGGGCAGCCCTGACTATGTCAACCGCGACAGTGTGAGGC
 TACGGAGGACTTCATGAGGCGCATTGAGTGTATGAGAACTCCTACGAGTCGCTAGATGAGGACCTGGAT
 AGGGACCTGTCTATATCAAGATCATGGATGTGGGCCAGAGCTACGTGGTGAACCGTGTGGCTGACCACA
 TCCAGAGCCGCATCGTATATTACCTCATGAACATCCACGTGACCCCGCTCCATCTACCTCGCCGGCA
 CGGGGAGAGCGAGCTCAACCTCAAGGGCCGGATTGGCGGGGACCCAGGACTGTCCCTCGGGGACGGGAG
 TTTGCCAAGAGTCTAGCCAGTTCATCAGTGACCAAAAATCAAGGATCTGAAGGTCTGGACAAGCCAGA
 TGAAGAGGACAATCCAGACGGCTGAGGCACTGGGTGTGCCCTATGAACAGTGAAGGTCTCAACGAGAT
 CGATGCGGGCGTCTGTGAGGAAATGACCTACGAGGAAATTCAGGATAATTATCCACTGGAGTTCGCCCTG
 CGGGACCAGGACAAGTACCGGTACCGGTACCCTAAAGGGGAGTCCCTACGAGGACCTGGTCCAGAGACTGG
 AGCCTGTATCATGGAGCTGGAGAGGCAAGAGAAATGTGCTGGTTCATCTGCCACCAGGCTGTGATGCCGTG
 CCTGCTGGCCTACTTCTCGACAAGGCAGCAGAACAGCTGCCCTACCTCAAGTGTCCGCTGCACACAGTC
 CTGAAGCTGACTCCTGTGCATATGTTTGTAAAGTGGAGTCCATATTCTGAACGTGGCTGCTGTGAACA
 CGCACCGGGACAGGCCTCAGAACGTGGACATCTCAAGACCTCCAGAGGAAGCCCTGTACGGTGCCTGC
 TCACCAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC201573 protein sequence
 Red=Cloning site Green=Tags(s)

MASPRELTQNPLKKIWPYSNGRPAALHACQRGVCMNCPTLIVMVGLPARGKTYISKKLTRYLNWIGVPT
 REFNVGQYRRDVKTYKSFEEFLPDNEELKIRKQCALAALRDVRRFLSEEGHVAVFDAATNTTRERRAT
 IFNFGQNGYKTFVVESICVDPEVIAANIVQVKLGSPDYVNRDSDEATEDFMRRIECYENSYESLDEDLD
 RDL SYIKIMDVGQSYVVRVADHIQSRIVYYLMNIHVTPRSIYLCRHGESELNLKGRIGGDPGLSPRGRE
 FAKSLAQFISDQNIKDLKVVWTSQMKRTIQTAELGVPYEQWVNLNEIDAGVCEEMTYEEIQDNYPLEFAL
 RDQDKYRYRYPKGESYEDLVQRLEPVI MELERQENVLVICHQAVMRCLLAYFLDKAAEQLPYLKCP LHTV
 LKLTVPVAYGCKVESIFLNVAAVNTHRRPQNVDISRPPEALVTPAHQ

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6074_e01.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_004567

ORF Size: 1407 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_004567.4](#)

RefSeq Size: 3503 bp

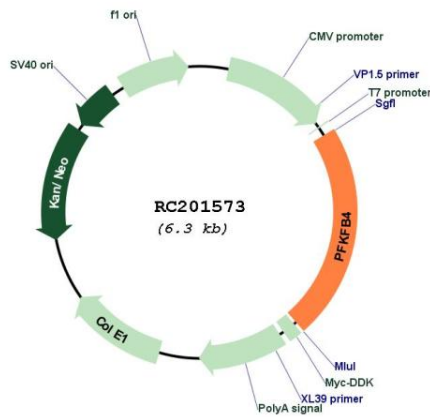
RefSeq ORF: 1410 bp

Locus ID: 5210

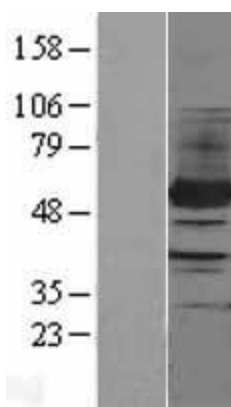
UniProt ID: [Q16877](#)
Cytogenetics: 3p21.31
Domains: PGAM, 6PF2K
Protein Families: Druggable Genome
Protein Pathways: Fructose and mannose metabolism
MW: 54 kDa

Gene Summary: The protein encoded by this gene is one of four bifunctional kinase/phosphatases that regulate the concentration of the glycolytic byproduct fructose-2,6-bisphosphate (F2,6BP). The encoded protein is highly expressed in cancer cells and is induced by hypoxia. This protein is essential to the survival of cancer cells under conditions of hypoxia, because it increases the amount of F2,6BP and ATP at a time when the cell cannot produce much of them. This finding suggests that this protein may be a good target for disruption in cancer cells, hopefully imperiling their survival. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Nov 2015]

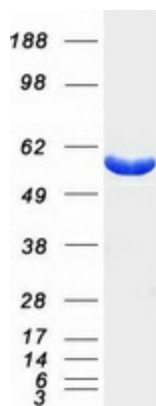
Product images:



Circular map for RC201573



Western blot validation of overexpression lysate (Cat# [LY401448]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201573 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PFKFB4 protein (Cat# [TP301573]). The protein was produced from HEK293T cells transfected with PFKFB4 cDNA clone (Cat# RC201573) using MegaTran 2.0 (Cat# [TT210002]).