

Product datasheet for **RG206043**

PFKFB3 (NM_004566) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PFKFB3 (NM_004566) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PFKFB3
Synonyms:	iPFK-2; IPFK2; PFK2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG206043 representing NM_004566
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCGTTGGAAGTACGCAGAGCCGAGTGCAGAAGATCTGGGTGCCCGTGGACCACAGGCCTCGTTGC
 CCAGATCTGTGGGCCAAGCTGACCAACTCCCCACCGTCATCGTCATGGTGGGCTCCCCGCCGGGG
 CAAGACCTACATCTCAAGAAGCTGACTCGCTACCTCAACTGGATTGGCGTCCCCACAAAAGTGTCAAC
 GTCGGGGAGTATCGCCGGGAGGCTGTGAAGCAGTACAGCTCTACAACCTCTCCGCCCGACAATGAGG
 AAGCCATGAAAGTCCGGAAGCAATGTGCCTTAGCTGCCTTGAGAGATGTCAAAGCTACCTGGCGAAAGA
 AGGGGGACAAATTGCGGTTTTTCGATGCCACCAATACTACTAGAGAGAGGAGACACATGATCCTTCATTTT
 GCCAAAGAAAATGACTTTAAGGCGTTTTTCATCGAGTCGGTGTGCGACGACCCTACAGTTGTGCCTCCA
 ATATCATGGAAGTAAAACTCCAGCCCGATTACAAAGACTGCAACTCGGCAGAAGCCATGGACGACTT
 CATGAAGAGGATCAGTTGCTATGAAGCCAGCTACCAGCCCTCGACCCGACAAATGCGACAGGGACTTG
 TCCTGATCAAGGTGATTGACGTGGGCCGAGGTTCTGGTGAACCGGGTGCAGGACCACATCCAGAGCC
 GCATCGTGTACTACCTGATGAACATCCAGTGCAGCCGCGTACCATCTACCTGTGCCGGCACGGCGAGAA
 CGAGCACAACTCCAGGGCCGATCGGGGGCGACTCAGGCCTGTCCAGCCGGGGCAAGAAGTTTGCCAGT
 GCTCTGAGCAAGTTCGTGGAGGAGCAGAACCTGAAGGACCTGCGCGTGTGGACCAGCCAGCTGAAGAGCA
 CCATCCAGACGGCCGAGGCGCTGCGGCTGCCCTACGAGCAGTGAAGGCGCTCAATGAGATCGACGCGGG
 CGTCTGTGAGGAGCTGACCTACGAGGAGATCAGGGACCTACCTGAGGAGTATGCGCTGCGGGAGCAG
 GACAAGTACTATTACCGTACCCACCGGGGAGTCTACCAGGACCTGGTCCAGCGCTTGGAGCCAGTGA
 TCATGGAGCTGGAGCGGCAGGAGAATGTCTGGTCACTGCCACCAGCGCTCTGCGCTGCCTGCTTGC
 CTACTTCTGGATAAGAGTGCAGAGGAGATGCCCTACCTGAAATGCCCTTTCACACCGTCTGAAACTG
 ACGCCTGTGCTTATGGCTGCCGTGTGGAATCCATCTACCTGAACGTGGAGTCCGCTGCACACACCGGG
 AGAGGTGAGAGGATGCAAAGAAGGGACCTAACCCGCTCATGAGACGCAATAGTGTACCCCGCTAGCCAG
 CCCCAGCCACCAAAAAGCCTCGCATCAACAGCTTTGAGGAGCATGTGGCTCCACCTCGGCCGCCCTG
 CCCAGTGCCTGCCCGGAGGTGCCACGCAGCTGCCTGGACAAAACATGAAAGGCTCCCGGAGCAGCG
 CTGACTCTCCAGGAAACAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG206043 representing NM_004566
 Red=Cloning site Green=Tags(s)

MPLELTQSRVQKIWVPVDHRPSLPRSCGPKLTNSPTVIVMVGLPARGKTYISKLLTRYLNWIGVPTKVFN
 VGEYRREAVKQYSSYNFFRPDNEEAMKVRKQCALAALRDVKSYLEGGQIAVFDATNTTRERRHMLHF
 AKENDFKAFFIESVCDPTVVASNIMEVKISSPDYKDCNSAEAMDDFMKRISCYEASYQPLDPDKDRDL
 SLIKVIDVGRFVLNVRVQDHIQSRIVYYLMNIHVQPRTIYLCRHGENEHLQGRIGGDSGLSSRGKFFAS
 ALSKFVEEQNLKDLRVWTSQKSTIQTAELRPLPYEQWKALNEIDAGVCEELTYEIRDTYPEEYALREQ
 DKYYYYRYPTGESYQDLVQRLEPVIEMELERQENVLVICHQAVLRCLLAYFLDKSAEEMPYLKCPLHTVLKL
 TPVAYGCRVESIYLNVESVCTHRERSEDAKKGNPLMRRNSVTPLASPEPTKKPRINSFEEHVASTSAAAL
 PSCLPPEVPTQLPGQNMKGRSSADSSRKH

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_004566

ORF Size: 1560 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_004566.4](#)

RefSeq Size: 4497 bp

RefSeq ORF: 1563 bp

Locus ID: 5209

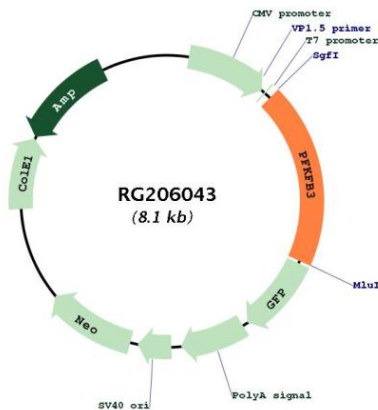
UniProt ID: [Q16875](#)

Cytogenetics: 10p15.1

Domains: PGAM, 6PF2K
Protein Families: Druggable Genome
Protein Pathways: Fructose and mannose metabolism
Gene Summary:

The protein encoded by this gene belongs to a family of bifunctional proteins that are 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 (F2,6BP), and a fructose-2,6-bisphosphatase activity that catalyzes the degradation of F2,6BP. This protein is required for cell cycle progression and prevention of apoptosis. It functions as a regulator of cyclin-dependent kinase 1, linking glucose metabolism to cell proliferation and survival in tumor cells. Several alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Apr 2016]

Product images:



Circular map for RG206043