

Product datasheet for SC110972

PFKFB4 (NM_004567) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PFKFB4 (NM_004567) Human Untagged Clone
Tag:	Tag Free
Symbol:	PFKFB4
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC110972 sequence for NM_004567 edited (data generated by NextGen Sequencing)

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ATGGCGTCCCCACGGGAATTGACACAGAACCCCTGAAGAAGATCTGGATGCCATACAGC
AATGGGCGGCCCGCTCTGCACGCTTGCCAGCGCGGTGTGTGCATGACCAACTGCCCAACT
CTCATTGTTCATGGTGGGCTGCCCGCCAGGGGCAAGACCTACATCTCCAAGAAGCTGACT
CGATACCTGAACTGGATTGGTGTGCCACTCGGGAGTTCAATGTTGGCCAGTATCGCCGG
GACGTGGTCAAGACCTACAAATCTTTTGAATTTTTTCTCCCCGACAATGAAGAGGGCCTG
AAAATCAGGAAGCAGTGTGCCCTGGCAGCCCTCCGTGACGTCCGGCGGTTCTTAGTGAG
GAGGGGGGACATGTGGCGGTTTTTGTATGCCACAAAACACCACCCGAGAACGGAGAGCGACC
ATCTTTAATTTTGGAGAACAGAATGGCTACAAGACCTTTTTTGTGCGAGTCCATCTGTGTG
GATCCTGAGGTCATAGCTGCCAACATCGTGCAAGTGAAACTGGGCAGCCCTGACTATGTC
AACCGCGACAGTGATGAGGCTACGGAGGACTTCATGAGGCGCATTGAGTGTATGAGAAC
TCCTACGAGTCGCTAGATGAGGACCTGGATAGGGACCTGTCTATATCAAGATCATGGAT
GTGGGCCAGAGCTACGTGGTGAACCGTGTGGCTGACCACATCCAGAGCCGCATCGTATAT
TACCTCATGAACATCCACGTGACCCCCGCTCCATCTACCTCTGCCGGCACGGGGAGAGC
GAGCTCAACCTCAAGGGCCGGATTGGCGGGGACCCAGGACTGTCCCTCGGGGCAGGGAG
TTTGCCAAGAGTCTAGCCCAGTTCATCAGTGACCAAAATATCAAGGATCTGAAGGTCTGG
ACAAGCCAGATGAAGAGGACAATCCAGACGGCTGAGGCACTGGGTGTGCCCTATGAACAG
TGGAAGGTCCTCAACGAGATCGATGCGGGCGTCTGTGAGGAAATGACCTACGAGGAAATT
CAGGATAATTATCCACTGGAGTTCGCCCTGCGGGACCAGGACAAGTACCGGTACCGGTAC
CCTAAAGGGGAGTCTACGAGGACCTGGTCCAGAGACTGGAGCCTGTCATCATGGAGCTG
GAGAGGCAAGAGAATGTGCTGGTTCATCTGCCACCAGGCTGTGATGCGCTGCCTGTGGCC
TACTTCTCGACAAGGCAGCAGAACAGCTGCCCTACCTCAAGTGTCCGCTGCACACAGTC
CTGAAGCTGACTCCTGTGGCATAATGTTGTAAGTGGAGTCCATATTCTGAACGTGGCT
GCTGTGAACACGCACCGGGACAGGCCTCAGAACGTGGACATCTCAAGACCTCCAGAGGAA
GCCCTTGTACGGTGCCTGCTCACCAGTGA

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Clone variation with respect to NM_004567.2



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5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_004567 unedited</p> <pre>GCGATTTGTATACGACTCCTATAGGCGGCCGCGNAATTCGCACGAGGAGGTGGCCCGGCT GCTGGGTTGGAAGCGGCCGAGTCCGACTCATCCCGGCCCGGGATGGCGTCCCCACGGGN AATTGACACAGAACCCCTGAAGAAGATCTGGATGCCATACAGCAATGGGCGGCCGGTC TGCACGCTTGCCAGCGCGGTGTGTGCATGACCAACTGCCAACTCTCATTGTCATGGTGG GCCTGCCCGCCAGGGCAAGACCTACATCTCCAAGAGGCTGACTCGATACTGAACCTGGA TTGGTGTGCCCACTCGGGAGTTCAATGTTGGCCAGTATCGCCGGGACGTGGTCAAGACCT ACAAATCTTTTGAATTTTTCTCCCGACAATGAAGAGGCCTGAAAATCAGGAAGCAGT GTGCCCTGGCAGCCCTCCGTGACGTCCGGCGGTTCTTAGTGAGGAGGGGGACATGTGG CGGTTTTTGATGCCACAAACACCACCCGAGAACGGAGAGCGACCATCTTTAATTTTGGAG AACAGAATGGCTACAAGACCTTTTTTGTGCGAGTCCATCTGTGTGGATCCTGAGGTCATAG CTGCCAACATCGTGAAGTGAAGTGGGACGCCCTGACTATGTCAACCGGACAGTGATG AGGCTACCGAGGACTTCATGAGGCGCATTGAGTGTATGAGAATCCTACCAGTCGCTAG ATGAGGACCTGATAGGGACCTGTCTATATAAGATCATGGATGTGGGCCAGAGCTACG TGGTGAACCGTGTGGCTGACCCATCCCGACCCGAACGTATATTACCTCATGAACATTCC ACGTGACCCCGTCCATCTACCTTGNCGGAACGGGGAGAGCGAGGCTAACCTCCAGGC GCGCGATGGTGGGACCCAGACTGTCCCTCGGGCAGGTAGTTTGCCAGAGTTTC</pre>
3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_004567 unedited</p> <pre>AGCTATGGACCCGCGGCCGAATCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTTTTTTTAT TTTTTAAAGTATTTATTGCAAAGATGCTGGCACACAGTGTTCATGTGGCTGAGATT CAATACCATCCATTCTGGGGAATCGGGAAAATATCTGCAACATGGGCACGCCAGCCAGC ATGGCCGAAATGTGGCAGCCAATCAGCTACACCTCAGCCATGCGGAGACCATGCCAGGG CAGAGGCCGGGGGTTGCCCCACTCATGCCCTGATCCCTGGATGTCCCTCTACCCTGTC CCAGTCCCTCGTAATGCATCCAGTCCAGCAACTCCTAACTCCCTCTGTACACAGAGAGA AAAGGCCTCGGGCTCTCACCTCAGATGACATCCAGAGGTACATGCACTGTTGCTGACCA AGGGAACCCACTATGGCTAACAAATGAGTGTGTCCAGGTGACAAAAGTCACAAAACCTCC AAAATACACAGAAGCAAAGGCTGCACTCCTAATGTCCCAAAGGCATGGTCTTGGGCTCT GGGTCTAAAGGGCTTGGGGCTCTCACACAGAATCTGGAGGATCTTGCCCCCGGTCCCTCT GGACATTTCTTACCGAGCCCCCAGGCTGAGACACACCGACCCGGGCACGGGCCCTATC TTCAGTCGCGCTCCGGGAGCTCTCGGGACTCGCCTAACCCGGGAACCTGGAAATATCGC CCTCCCTTTCGACATTGAACATCAGGGGCGCGCGCCAGAGGCCACTCCCTCCATGGCA CCGCCTACACGCTCGTCGCCCTTTCACCCATACCGACCTCATCAACCGCCCAACC CTACAATATTCATCTACATCACCACACAACACATTGTACGTAACACCCGCACACCCC TCAGATTCGCGCCCGGGCCGCTCCCTGCTCCTTGCCAGTACNAGCATCTAGCCGTACTC CACCCGCGTC</pre>
Restriction Sites:	ECORI-NOT
ACCN:	NM_004567
Insert Size:	3630 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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_004567.2](#), [NP_004558.1](#)

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

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]

Transcript Variant: This variant (2) lacks an alternate coding exon in the 5' end compared to variant 1. The resulting isoform (b) has a shorter and distinct N-terminus compared to isoform a.