

Product datasheet for **MR210614**

Pfkl (NM_008826) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pfkl (NM_008826) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Pfkl
Synonyms:	AA407869; ATP-PFK; PFK-B; PFK-L
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>MR210614 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGCTACCGTGGACCTGGAGAACTGCGGATGTCGGGGCTGGCAAGGCCATTGGAGTGTGACCAGCG
GCGGTGATGCGCAAGGTATGAATGCTGCTGTGAGGGCTGTGACCCGTATGGGCATATATGTGGGGCCAA
AGTCTTCCTCATCTATGAGGGCTACGAGGGCCTTGGAAGGAGGCGAGAACATCAAGCCAGCCAACTGG
CTCAGCGTTTCCAATATCATCCAGCTGGGTGGCACCATTATTGGCAGTGCCCGCTGTAAGGCCTTACTA
CGAGGGAAGGCCGCTGGCTGCAGCCTACAATCTGCTCCAACACGGCATACCAACCTGTGTGCATCGG
TGGCGATGGCAGCCTCACGGGGCCAACATCTCCGCAACGAGTGGGCGAGCTTGTGGAGGAGCTGGT
AAGGAAGCAAGATCTCAGAGTCCAGCTCAGAACTACGCACACTTGACCATCGCCGGTCTGGTGGCT
CCATCGATAATGACTTCTGCGGCACTGACATGACCATTGGCACAGACTCAGCCCTGCACCGCATTATGGA
GGTCATTGACGCCATCACTACCACTGCCAAAGTACCAGAGGACCTTTGTTTTGGAGGTGATGGGACGG
CACTGCGGGTACCTGGCGCTGGTGTCTGCGCTGGCTTCCGGGGCTGATTGGCTATTCATTCTGAAGCGC
CCCCTGAGGATGGCTGGGAGAACTTCATGTGTGAGAGGCTGGGCGAGACTCGGAGCCGAGGCTCTCGGT
GAACATCATCATCGCAGAGGGCGCCATTGACCGGCATGAAAAGCCTATCTCATCCAGCTACGTGAAG
GATCTGGTGGTTCAGAGGCTGGGCTTCGATACACGAGTACTGTGCTGGGTGATGACAGCGAGGAGGGA
CGCCTTACGCCTTCGACCGAATCCTGAGTAGCAAGATGGGTATGGAGGCCGTGATGGCGCTGCTAGAGGC
CACGCCTGACACGCCGGCCTGTGTGGTCAAGCTTCCGGGAACCAAGTCTGTGAGGCTGCCTCTCATGGAG
TGTGTCAAGTGACAAAGGACGTGCAGAAGGCCATGGACGAGGAGAGGTTTGACGAGGCCATCCAGCTCC
GTGGCAGGAGCTTTGAGAACTGAAAATTTACAAGCTCCTTGCCACCAGAAGGTGTCTAAAGAGAA
GTCCAACCTTCTCCCTGGCCATCCTGAATGTGGGGCTCCAGCTGCTGGCATGAATGCAGCTGTGCGCTCC
GCAAGTGGCACCCGGTATCTCCGAGGACACACGGTATACATCGTGCATGATGGCTTTGAGGGTCTGGCCA
AGGGTCAGGTGCAAGAAGTGGGCTGGCATGATGTGGCAGGCTGGCTGGGACGTGGTGGCTCGATGCTGGG
GACCAAGAGGACTGCCCAAGCCCACTGGAGGCCATTGTGGAGAATCTCCGCACCTACAACATCCAC
GCCCTGCTGGTGATTGGTGGCTTTGAGGCCTACGAGGGTGTGCTGCAGCTGGTGGAGGCCGGGGCGCT
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CAGCCTGGGCTCAGACACGGCTGTCAACGCTGCAATGGAGAGTTGTGATCGCATCAAGCAGTCAAGCTCA
GGGACAAAGCGGCTGTGTTTATTGTAGAGACCATGGGGGCTACTGTGGCTACCTGGCCACTGTGACCG
GCATTGCTGTGGGTGCCGATGCTGCCTACGTCTTTGAGGACCCTTCAACATCCATGACTTAAAGGCCAA
TGTGGAGCATATGACAGAGAAGATGAAGACAGACATCCAGAGGGGACTGGTGTCTCCGGAACGAGAAGTGT
CACGAACACTACACCACAGAGTTCTATAACAACCTGACTCCTCAGAAGGCAGGGGCGTGTTTGACTGCA
GGACCAATGTGCTGGGCCACTTACAGCAGGGTGGTGTCTCAACCCCTTTGACCGGAACTATGGGACCA
ACTGGGGTGAAGGCCATGTTGTGGGTGTCTGAGAAGTACGTGATGTCTACCGTAAAGGGCGGGTGT
GCCAATGCTCCAGACTCAGCCTGTGTGATCGGCCTGCGGAAGAAGGTAGTGGCCTCAGTCCGGTCAAG
AACTCAAGAAAGAGACTGATTTTGTGACACCGCATGCCCGGGAGCAGTGGTGGCTGAATCTGCGGCTGAT
GCTGAAGATGCTGGCACACTATCGCATCAGCATGGCAGACTATGTGTCTGGGAGCTGGAGCACGTCACA
CGCCGCACCTTGAGCATAGACAAGGGTTTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR210614 protein sequence

Red=Cloning site Green=Tags(s)

MATVDLEKLRMSGAGKAIGVLTSGGDAQGMNAAVRAVTRMGIYVGAKVFLIYEGYEGLVEGGENIKPANW
LSVSNIIQLGGTIIGSARCKAFTTREGRLAAAYNLLQHGITNLCVIGGDGSLTGANIFRNEWGSLLEELV
KEGKISESTAQNYAHLTIAGLVGSIDNDFCGTDMTIGTDSALHRIMEVIDAITTTAQSHQRTFVLEVMGR
HCGYLALVSALASGADWLFIPAEAPPEDGWENFMCERLGETRSRGSRLNIIIIAEGAIDRHGKPISSSYVK
DLVVQRLGFDTRVTVLGHVQRGGTPSAFDRILSSKMGMEAVMALLEATPDTACVVVSLSGNQSVRLPLME
CVQVTKDVQKAMDEERFDEAIQLRGRSFENNWKIYKLLAHQKVSKEKSNFSLAILNVGAPAAGMNAAVRS
AVRTGISEGHTVYIVHDGFEGGLAKGQVQEVGWHDVAGWLRGGGSMGTRKRLPKPHLEAIVENLRTYNIH
ALLVIGGFAYEYGLQLVEARGRYEELCIVMCVIPATISNNVPGTDFSLGSDTAVNAAMESCDRIKQSAS
GTKRRVFIIVETMGGYCGYLATVTGIAVGADAAYVFEDPFNIHDLKANVEHMTKMKTDIQRGLVLRNEKC
HEHYTTEFLYNLYSSEGRGVFDCRTNVLGHLQQGGAPTFDRNYGKLVKAMLVVSEKLRDVYRKGRVF
ANAPDSACVIGLRKKVVAFFSPVTELEKKEPDFEHRMPREQWLNLRMLKMLAHYRISMADYVSGELEHVT
RRTLSIDKGF

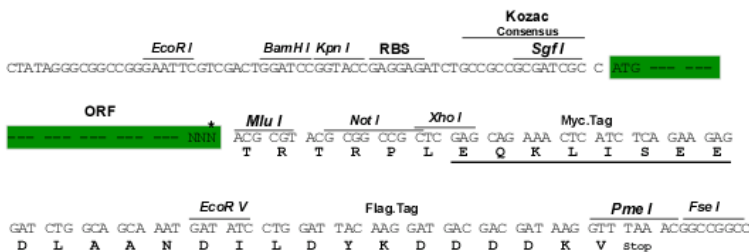
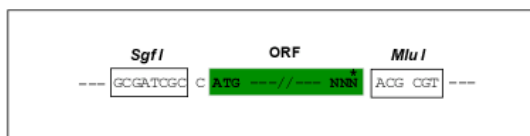
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

- ACCN: NM_008826
- ORF Size: 2343 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_008826.1](#), [NM_008826.2](#), [NM_008826.3](#), [NM_008826.4](#), [NP_032852.2](#)

RefSeq Size: 3741 bp

RefSeq ORF: 2343 bp

Locus ID: 18641

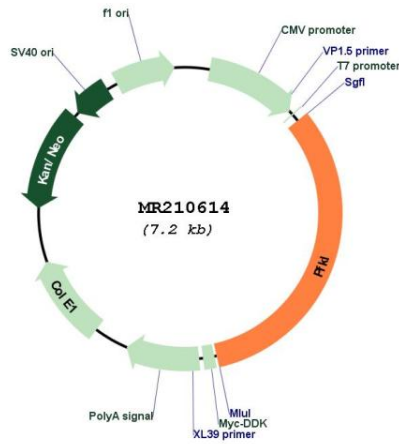
UniProt ID: [P12382](#)

Cytogenetics: 10 39.72 cM

MW: 85.4 kDa

Gene Summary: Catalyzes the phosphorylation of D-fructose 6-phosphate to fructose 1,6-bisphosphate by ATP, the first committing step of glycolysis (By similarity). Negatively regulates the phagocyte oxidative burst in response to bacterial infection by controlling cellular NADPH biosynthesis and NADPH oxidase-derived reactive oxygen species. Upon macrophage activation, drives the metabolic switch toward glycolysis, thus preventing glucose turnover that produces NADPH via pentose phosphate pathway (PubMed:26194095).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR210614