

Product datasheet for **MG210614**

Pfkl (NM_008826) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pfkl (NM_008826) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Pfkl
Synonyms:	AA407869; ATP-PFK; PFK-B; PFK-L
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>MG210614 representing NM_008826
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCTACCGTGGACCTGGAGAACTGCGGATGTCGGGGCTGGCAAGGCCATTGGAGTGTGACCAGCG
 GCGGTGATGCGCAAGGTATGAATGCTGCTGTGAGGGCTGTGACCCGTATGGGCATATATGTGGGGCCAA
 AGTCTTCCTCATCTATGAGGGCTACGAGGGCCTTGGAAGGAGGCGAGAACATCAAGCCAGCCAACTGG
 CTCAGCGTTTCCAATATCATCCAGCTGGGTGGCACCATTATTGGCAGTGCCCGCTGTAAGGCCTTCACTA
 CGAGGGAAGGCCGCTGGCTGCAGCCTACAATCTGCTCCAACACGGCATACCAACCTGTGTGCATCGG
 TGGCGATGGCAGCCTCACGGGGCCAACATCTCCGCAACGAGTGGGCGAGCTTGTGGAGGAGCTGGT
 AAGGAAGCAAGATCTCAGAGTCCAGCTCAGAACTACGCACACTTGACCATCGCCGGTCTGGTGGGCT
 CCATCGATAATGACTTCTGCGGCACTGACATGACCATTGGCACAGACTCAGCCCTGCACCGCATTATGGA
 GGTCAATTGACGCCATCACTACCACTGCCAAAGTACCAGAGGACCTTTGTTTTGGAGGTGATGGGACGG
 CACTGCGGGTACCTGGCGCTGGTGTCTGCGCTGGCTTCCGGGGCTGATTGGCTATTCATTCTGAAGCGC
 CCCCTGAGGATGGCTGGGAGAACTTCATGTGTGAGAGGCTGGGCGAGACTCGGAGCCGAGGCTCTCGGT
 GAACATCATCATCGCAGAGGGCGCCATTGACCGGCATGAAAAGCCTATCTCATCCAGCTACGTGAAG
 GATCTGGTGGTTCAGAGGCTGGGCTTCGATACACGAGTACTGTGCTGGGTGATGACAGCGAGGAGGGA
 CGCCTTACGCCTTCGACCGAATCCTGAGTAGCAAGATGGGTATGGAGGCCGTGATGGCGCTGCTAGAGGC
 CACGCTGACACGCCGGCCTGTGTGGTCAAGCTTCCGGGAACAGTCTGTGAGGCTGCCTCTCATGGAG
 TGTGTCAAGTGACAAAGGACGTCAGAAAGGCCATGGACGAGGAGAGGTTTGACGAGGCCATCCAGCTCC
 GTGGCAGGAGCTTTGAGAACAACCTGAAAATTTACAAGCTCCTTGCCACCAGAAGGTGTCTAAAGAGAA
 GTCCAACCTCTCCCTGGCCATCCTGAATGTGGGGCTCCAGCTGCTGGCATGAATGCAGCTGTGCGCTCC
 GCAGTGGCACCCGTATCTCCGAGGACACACGGTATACATCGTGCATGATGGCTTTGAGGGTCTGGCCA
 AGGGTCAGGTGCAAGAAGTGGGCTGGCATGATGTGGCAGGCTGGCTGGGACGTGGTGGCTCGATGCTGGG
 GACCAAGAGGACTGCCAAGCCCACTGGAGGCCATTGTGGAGAATCTCCGCACCTACAACATCCAC
 GCCCTGCTGGTGATTGGTGGCTTTGAGGCCTACGAGGGTGTGCTGCAGCTGGTGGAGGCCGGGGCGCT
 ACGAGGAATCTGCATTGTGATGTCGTCATCCCAGCCACCATCAGCAACAATGTGCTGGCACTGACTT
 CAGCCTGGGCTCAGACACGGCTGTCAACGCTGCAATGGAGAGTTGTGATCGCATCAAGCAGTCAGCCTCA
 GGGACAAAGCGGCTGTGTTTATTGTAGAGACCATGGGGGCTACTGTGGCTACCTGGCCACTGTGACCG
 GCATTGCTGTGGGTGCCGATGCTGCCTACGTCTTTGAGGACCCTTCAACATCCATGACTTAAAGGCCAA
 TGTGGAGCATATGACAGAGAAGATGAAGACAGACATCCAGAGGGGACTGGTGTCTCCGGAACGAGAAGTGT
 CACGAACACTACACCACAGAGTTCTATAACAACCTGACTCCTCAGAAGGCAGGGGCGTGTTTGACTGCA
 GGACCAATGTGCTGGGCCACTTACAGCAGGGTGGTGTCTCAACCCCTTTGACCGGAACTATGGGACCA
 ACTGGGGTGAAGGCCATGTTGTGGGTGTCTGAGAAGTACGTGATGTCTACCGTAAAGGGCGGGTGT
 GCCAATGCTCCAGACTCAGCCTGTGTGATCGGCCTGCGGAAGAAGGTAGTGGCCTCAGTCCGGTACAG
 AACTCAAGAAAGAGACTGATTTTGAGCACCGCATGCCCGGGAGCAGTGGTGGCTGAATCTGCGGCTGAT
 GCTGAAGATGCTGGCACACTATCGCATCAGCATGGCAGACTATGTGTCTGGGAGCTGGAGCACGTCACA
 CGCCGCACCTTGAGCATAGACAAGGGTTTC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG210614 representing NM_008826
 Red=Cloning site Green=Tags(s)

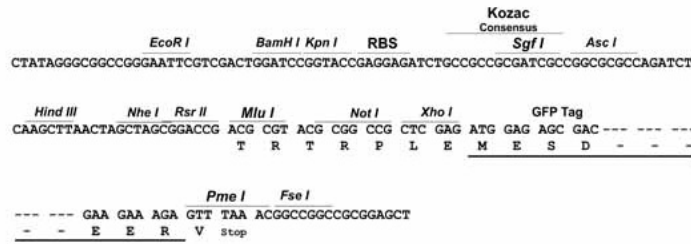
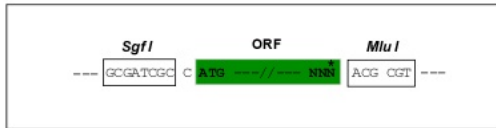
MATVDLEKLRMSGAGKAIGVLTSGGDAQGMNAAVRAVTRMGIYVGAKVFLIYEGYEGLVEGGENIKPANW
 LSVSNIIQLGGTIIGSARCKAFTTREGRLAAAYNLLQHGITNLCVIGGDGSLTGANIFRNEWGSLLEELV
 KEGKISESTAQNYAHLTIAGLVGSIDNDFCGTDMTIGTDSALHRIMEVIDAITTTAQSHQRTFVLEVMGR
 HCGYLALVSALASGADWLFIPAEPPEDGWENFMCERLGETRSRGRSLNIIIIAEGAIDRHGKPISSSYVK
 DLVVQRLGFDTRVTVLGHVQRGGTSAFDRILSSKMGMEAVMALLEATPDTACVVVSLSGNQSVRLPLME
 CVQVTKDVQKAMDEERFDEAIQLRGRSFENNWKIYKLLAHQKVSKEKSNFSLAILNVGAPAAGMNAAVRS
 AVRTGISEGHTVYIVHDGFELAKGQVQEVGWHDVAGWLRGGGSLGTRKRLPKPHLEAIVENLRTYNIH
 ALLVIGGFAYEYGLQLVEARGRYEELCIVMCIPATISNNVPGTDFSLGSDTAVNAAMESCDRIKQSAS
 GTKRRVFIVETMGGYCGYLATVTGIAVGADAAYVFEDPFNIHDLKANVEHMTKMKTDIQRGLVLRNEKC
 HEHYTTEFLYNLYSSEGRGVFDCRTNVLGHLQQGGAPTFDRNYGKLVKAMLVVSEKLRDVRKGRVF
 ANAPDSACVIGLRKKVAVSPVTELKKE TDFEHRMPREQWLLNLRMLKMLAHYRISMDYVVSGELEHVT
 RRTLSIDKGF

TRTRPLE - GFP Tag - V

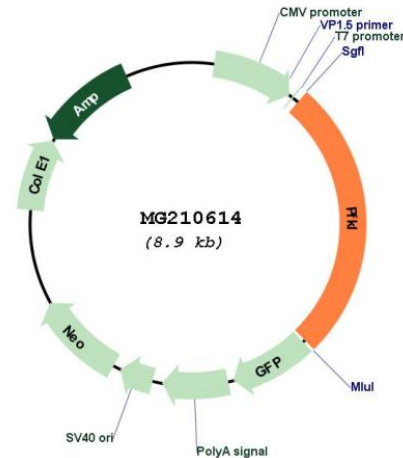
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_008826

ORF Size: 2340 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_008826.2](#), [NP_032852.2](#)

RefSeq Size: 3350 bp

RefSeq ORF: 2343 bp

Locus ID: 18641

UniProt ID: [P12382](#)

Cytogenetics: 10 39.72 cM

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]