

Product datasheet for **RG206455**

Pyruvate Kinase (PKLR) (NM_000298) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pyruvate Kinase (PKLR) (NM_000298) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Pyruvate Kinase
Synonyms:	PK1; PKL; PKRL; RPK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG206455 representing NM_000298
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTCGATCCAGGAGAACATATCATCCCTGCAGCTTCGGTCATGGGTCTCTAAGTCCCAAAGAGACTTAG
 CAAAGTCCATCCTGATTGGGGCTCCAGGAGGGCCAGCGGGTATCTGCGCGGGCCAGTGTGCCCAACT
 GACCCAGGAGCTGGGCACTGCCTTCTTCCAGCAGCAGCAGCTGCCAGCTGCTATGGCAGACACCTTCCTG
 GAACACCTCTGCCTACTGGACATTGACTCCGAGCCGTGGCTGCTCGCAGTACCAGCATATTGCCACCA
 TCGGGCCAGCATCTCGCTCCGTGGAGCGCCTCAAGGAGATGATCAAGGCCGGGATGAACATTGCGCGACT
 CAATTCTCCCACGGCTCCCACGAGTACCATGCTGAGTCCATCGCCAACGTCCGGGAGGCGGTGGAGAGC
 TTTGCAGTTCCCACTCAGTACCGGCCCGTGGCCATCGCCCTGGACACCAAGGACCGGAGATCCGCA
 CTGGGATCCTGCAGGGGGTCCAGAGTCGGAAGTGGAGCTGGTGAAGGGCTCCAGGTGCTGGTACTGT
 GGACCCCGCTCCGGACGCGGGGAACCGAACACCGTGTGGGTGGACTACCCCAATATTGTCCGGGTC
 GTGCCGTGGGGGCCGATCTACATTGACGACGGGCTCATCTCCCTAGTGGTCCAGAAAATCGGCCAG
 AGGGACTGGTGACCCAAGTGGAGAACGGCGGCGTCTGGGCAGCCGGAAGGGCGTGAAC TTGCCAGGGGC
 CCAGGTGGACTTGCCCGGGCTGTCCGAGCAGGACGTCCGAGACCTGCGCTTCGGGGTGGAGCATGGGGTG
 GACATCGTCTTTGCCCTCTTTGTGCGGAAAGCCAGCGAGTGGCTGCCGTGAGGGCTGCTCTGGTCCGG
 AAGGACACGGCATCAAGATCATCAGCAAAATTGAGAACCAGGAAGGCGTGAAGAGGTTTGTGAAATCCT
 GGAGGTGAGCGACGGCATCATGGTGGCACGGGGGACCTAGGCATCGAGATCCCAGCAGAGAAGGTTTTTC
 CTGGCTCAGAAGATGATGATTGGGCGTCAACTTGGCGGGCAAGCCTGTTGTCTGTGCCACACAGATGC
 TGGAGCATGATTACCAAGCCCCGGCCAACGAGGGCAGAGACAAGCGATGTCGCCAATGCTGTGCTGGA
 TGGGGCTGACTGCATCATGCTGTACGGGAGACTGCCAAGGGCAACTCCCTGTGGAAGCGGTGAAGATG
 CAGCATGCGATTGCCCGGAGGCAGAGGCCGAGTGTACCACCGCAGCTGTTTGAGGAGCTACGTCGGG
 CAGCGCCACTAAGCCGTGATCCCACTGAGGTCAACGCCATTGGTGTGTGGAGGCTGCCTTCAAGTGCTG
 TGCTGCTGCCATATTGTGCTGACCACAAC TGCCCGCTCAGCCAGCTTCTGTCTCGGTACCGACCTCGG
 GCAGCAGTCATTGCTGTACCCGCTCTGCCAGGCTGCCCGCAGGTCCACTTATGCCGAGGAGTCTTCC
 CCTTGCTTTACCGTGAACCTCCAGAAGCCATCTGGGCAGATGATGATAGATCGCCGGTGCATTTGGCAT
 TGAAGTGAAAGCTCCGTGGCTTCTCCGTGTTGGAGACCTGGTATTGTGGTACAGGCTGGCGACCT
 GGCTCCGGCTACACCAACATCATGAGGGTGCTAAGCATATCC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG206455 representing NM_000298
 Red=Cloning site Green=Tags(s)

MSIQENISSLQLRSWVSKSQRD LAKSILIGAPGGPAGYLRRASVAQLTQELGTAFFQQQLPAAMADTFL
 EHLCLLDIDSEPVAARSTSI IATIGPASRSVERLKEMIKAGMNIARLNF SHGSHEYHAESIANVREAVES
 FAGSPLSYRPVAIALDTKGPEIR TGILQGGPESEVELVKGSQVLVTVDPAFRTRGNANTVWVDYPNIVRV
 VPGGRIYIDDGLISLVVQKIGPEGLVTQVENGGVLGSRKGVNLPGAQVDLPGLSEQDVRDLRFVGEHGV
 DIVFASFVRKASDVAAVRAALGPEGHGIKIISKIENHEGVKRFDEILEVSDGIMVARGDLGIEIPA EKVF
 LAQKMMIGRCNLAGKPVVCATQMLESMITKPRPTRAETSDVANAVLDGADCIMLSGETAKGNFPVEAVKM
 QHAIAREAEAAVYHRQLFEELRRAAPLSRDPTEVTAIGAVEAAFKCCAAAIIVLTTTGRSAQLLSRYRPR
 AAVIAVTRSAQAARQVHLCRGVFP LLYREPP EAIWADDVDRRVQFGIESGKLRGFLRVGDLVIVVTGWRP
 GSGYTNI MRVLSIS

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_000298

ORF Size: 1722 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_000298.2](#)

RefSeq Size: 2483 bp

RefSeq ORF: 1725 bp

Locus ID: 5313

UniProt ID: [P30613](#)

Cytogenetics: 1q22

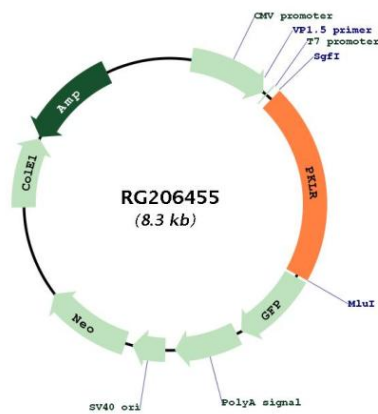
Domains: PK

Protein Families: Druggable Genome

Protein Pathways: Glycolysis / Gluconeogenesis, Insulin signaling pathway, Maturity onset diabetes of the young, Metabolic pathways, Purine metabolism, Pyruvate metabolism, Type II diabetes mellitus

Gene Summary: The protein encoded by this gene is a pyruvate kinase that catalyzes the transphosphorylation of phosphoenolpyruvate into pyruvate and ATP, which is the rate-limiting step of glycolysis. Defects in this enzyme, due to gene mutations or genetic variations, are the common cause of chronic hereditary nonspherocytic hemolytic anemia (CNSHA or HNSHA). Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG206455