

Product datasheet for **RC219382**

PKM2 (PKM) (NM_182470) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PKM2 (PKM) (NM_182470) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PKM2
Synonyms:	CTHBP; HEL-S-30; OIP3; p58; PK3; PKM2; TCB; THBP1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC219382 representing NM_182470
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCGAAGCCCCATAGTGAAGCCGGGACTGCCTTCATTACAGACCAGCAGCTGCACGCAGCCATGGCTG
 ACACATTCCTGGAGCACATGTGCCGCTGGACATTGATTCACCACCCATCACAGCCCGGAACACTGGCAT
 CATCTGTACCATTGGCCAGCTTCCCGATCAGTGGAGACGTTGAAGGAGATGATTAAGTCTGGAATGAAT
 GTGGCTCGTCTGAACTTCTCTCATGGAACATGAGTACCATGCGGAGACCATCAAGAATGTGCGCACAG
 CCACGGAAAGCTTTGCTTCTGACCCCATCTCTACCGCCCGTTGCTGTGGCTCTAGACACTAAAGGACC
 TGAGATCCGAACGGGCTCATCAAGGGCAGCGGCACTGCAGAGGTGGAGCTGAAGAAGGGAGCCACTCTC
 AAAATCACGCTGGATAACGCCTACATGGAAAAGTGTGACGAGAACATCCTGTGGCTGGACTACAAGAACA
 TCTGCAAGGTGGTGAAGTGGGAGCAAGATCTACGTGGATGATGGGCTTATTTCTCTCCAGGTGAAGCA
 GAAAGGTGCCGACTTCTGGTGACGGAGGTGAAAATGGTGGCTCCTTGGGCAGCAAGAAGGTGTGAAC
 CTTCTGGGGCTGCTGTGGACTTGCCTGCTGTGTCGGAGAAGGACATCCAGGATCTGAAGTTGGGGTCTG
 AGCAGGATGTTGATATGGTGTTCGCTCATTATCCGCAAGGCATCTGATGTCCATGAAGTTAGGAAGGT
 CCTGGGAGAGAAGGAAAGAACATCAAGATTATCAGAAAATCGAGAATCATGAGGGGTTCCGGAGGTTT
 GATGAAATCCTGGAGGCCAGTGATGGGATCATGGTGGCTCGTGGTGTATAGGCATTGAGATTCCTGCAG
 AGAAGGTCTTCTTGGCTCAGAAGATGATGATTGGACGGTGAACCGAGCTGGGAAGCCTGTATCTGTGC
 TACTCAGATGCTGGAGAGCATGATCAAGAAGCCCCGCCCACTCGGGTGAAGGCAGTGTGTGGCCAT
 GCAGTCTGGATGGAGCCGACTGCATCATGCTGTCTGGAGAAACAGCCAAAGGGGACTATCTCTGGAGG
 CTGTGCGCATGCAGCACCTGATAGCTGTGAGGCTGAGGCAGCCATGTTCCACCGCAAGCTTTTGAAGA
 ACTTGTGCGAGCCCTCAAGTCACTCCACAGACCTCATGGAAGCCATGGCCATGGGCAGCGTGGAGGCTTCT
 TATAAGTGTTTAGCAGCAGCTTTGATAGTTCTGACGGAGTCTGGCAGGTCTGCTCACCAGGTGGCCAGAT
 ACCGCCACGTGCCCCCATCATTGCTGTGACCCGGAATCCCAGACAGCTCGTCAGGCCACCTGTACCG
 TGGCATCTTCCCTGTGCTGTGCAAGGACCCAGTCCAGGAGGCCTGGGCTGAGGACGTGGACCTCCGGGTG
 AACTTTGCCATGAATGTTGGCAAGGCCGAGGCTTCTTCAAGAAGGGAGATGTGGTCATTGTGCTGACCG
 GATGGCGCCCTGGCTCCGGCTTACCAACACCATGCGTGTGTTCTGTGCCG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC219382 representing NM_182470
 Red=Cloning site Green=Tags(s)

MSKPHSEAGTAFIQTLHAAMADTFLEHMCRLDIDSPPIARNTGIICITIGPASRSVETLKEMIKSGMN
 VARLNFSHGTHEYHAETIKNVRTATESFASDPILYRPVAVALDTKGPEIRTLIKGSGTAEVELKKGATL
 KITLDNAYMEKCDENILWLDYKNICKVVEVGSKIYVDDGLISLQVKQKADFLVTEVENGGSLGSKKGVN
 LPGAAVDLPAVSEKDIQDLKFGVEQDVMVFAFIRKASDVHEVRKVLGEKGKNIKIIISKIENHEGVRRF
 DEILEASDGIMVARGDLGIEIPAEEKVFLAQKMMIGRCNRAGKPVICATQMLESMIKKPRPTRAEGSDVAN
 AVLGDADCIMLSGETAKGDYPLEAVRMQHLIAREAEAMFHRKLFEEVLRASSHSTDLMAMAMGSVEAS
 YKCLAAALIVL TESSRAHQVARYRPRAPIIAVTRNPQTARQHL YRGIFPVLCKDPVQEAWAEDVDLRV
 NFAMNVGKARGFFKKGDVVIVL TGWRPGSGFTNTMRVVPVP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6507_h10.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_182470

ORF Size: 1593 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_182470.3](#)

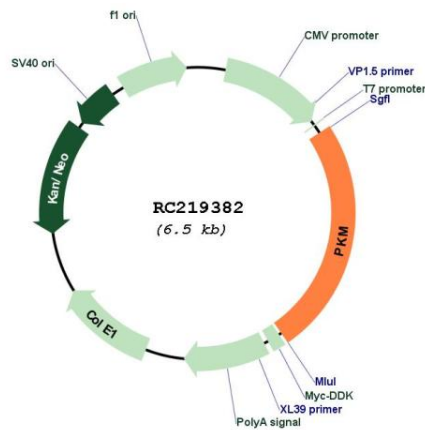
RefSeq Size: 2674 bp

RefSeq ORF: 1596 bp

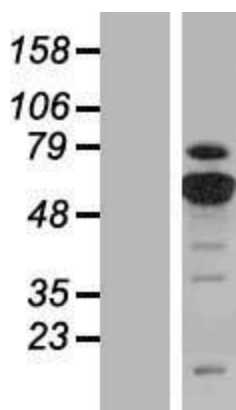
Locus ID: 5315

UniProt ID: [P14618](#)
Cytogenetics: 15q23
Protein Families: Druggable Genome
Protein Pathways: Glycolysis / Gluconeogenesis, Metabolic pathways, Purine metabolism, Pyruvate metabolism, Type II diabetes mellitus
MW: 57.9 kDa
Gene Summary: This gene encodes a protein involved in glycolysis. The encoded protein is a pyruvate kinase that catalyzes the transfer of a phosphoryl group from phosphoenolpyruvate to ADP, generating ATP and pyruvate. This protein has been shown to interact with thyroid hormone and may mediate cellular metabolic effects induced by thyroid hormones. This protein has been found to bind Opa protein, a bacterial outer membrane protein involved in gonococcal adherence to and invasion of human cells, suggesting a role of this protein in bacterial pathogenesis. Several alternatively spliced transcript variants encoding a few distinct isoforms have been reported. [provided by RefSeq, May 2011]

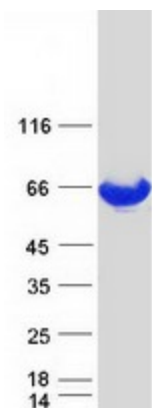
Product images:



Circular map for RC219382



Western blot validation of overexpression lysate (Cat# [LY405538]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC222698] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PKM protein (Cat# [TP319382]). The protein was produced from HEK293T cells transfected with PKM cDNA clone (Cat# RC219382) using MegaTran 2.0 (Cat# [TT210002]).