

## Product datasheet for **RC201855**

### **PKM2 (PKM) (NM\_002654) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PKM2 (PKM) (NM_002654) 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)



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**ORF Nucleotide Sequence:**

>RC201855 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTCGAAGCCCCATAGTGAAGCCGGGACTGCCTTCATTACAGACCCAGCAGCTGCACGCAGCCATGGCTG  
 ACACATTCCTGGAGCACATGTGCCGCTGGACATTGATTCACCACCCATCACAGCCCGGAACACTGGCAT  
 CATCTGTACCATTGGCCAGCTTCCCGATCAGTGGAGACGTTGAAGGAGATGATTAAGTCTGGAATGAAT  
 GTGGCTCGTCTGAACTTCTCTCATGGAACATGAGTACCATGCGGAGACCATCAAGAATGTGCGCACAG  
 CCACGGAAAGCTTTGCTTCTGACCCCATCTCTACCGCCCGTTGCTGTGGCTCTAGACACTAAAGGACC  
 TGAGATCCGAACGGGCTCATCAAGGGCAGCGGCACTGCAGAGGTGGAGCTGAAGAAGGGAGCCACTCTC  
 AAAATCACGCTGGATAACGCCTACATGGAAAAGTGTGACGAGAACATCCTGTGGCTGGACTACAAGAACA  
 TCTGCAAGGTGGTGAAGTGGGAGCAAGATCTACGTGGATGATGGGCTTATTTCTCTCCAGGTGAAGCA  
 GAAAGGTGCCGACTTCTGGTGACGGAGGTGAAAATGGTGGCTCCTTGGGCAGCAAGAAGGTGTGAAC  
 CTTCCTGGGGCTGCTGTGGACTTGCCTGCTGTGTCGGAGAAGGACATCCAGGATCTGAAGTTGGGGTCCG  
 AGCAGGATGTTGATATGGTGTTCGCTCATTATCCGCAAGGCATCTGATGTCCATGAAGTTAGGAAGGT  
 CCTGGGAGAGAAGGAAAGAACATCAAGATTATCAGAAAATCGAGAATCATGAGGGGTTCCGGAGGTTT  
 GATGAAATCCTGGAGGCCAGTGATGGGATCATGGTGGCTCGTGGTGTATAGGCATTGAGATTCCTGCAG  
 AGAAGGTCTTCTTGGCTCAGAAGATGATGATTGGACGGTGCAACCGAGCTGGGAAGCCTGTATCTGTGC  
 TACTCAGATGCTGGAGAGCATGATCAAGAAGCCCCGCCCACTCGGGTGAAGGCAGTGATGTGGCCAA  
 GCAGTCTGGATGGAGCCGACTGCATCATGCTGTCTGGAGAAACAGCCAAAGGGGACTATCTCTGGAGG  
 CTGTGCGCATGCAGCACCTGATTGCCCGTGAAGGAGGAGGCTGCCATCTACCACTTGAATTTATTGAGGA  
 ACTCCGCGCCTGGCGCCATTACCAGCGACCCACAGAAGCCACCGCCGTGGGTGCCGTGGAGGCCTCC  
 TTCAAGTGTGAGTGGGGCCATAATCGTCTCAACCAAGTCTGGCAGGTCTGCTCACCAGGTGGCCAGAT  
 ACCGCCACGTGCCCCCATCATTGCTGTGACCCGGAATCCCAGACAGCTCGTCAGGCCACCTGTACCG  
 TGGCATCTTCCCTGTGCTGTGCAAGGACCCAGTCCAGGAGGCCTGGGCTGAGGACGTGGACCTCCGGGTG  
 AACTTTGCCATGAATGTTGGCAAGGCCGAGGCTTCTTCAAGAAGGGAGATGTGGTCATTGTGCTGACCG  
 GATGGCGCCCTGGCTCCGGCTTACCAACACCATGCGTGTGTTCTGTGCCG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC201855 protein sequence  
 Red=Cloning site Green=Tags(s)

MSKPHSEAGTAFIQTLHAAMADTFLEHMCRLDIDSPPIARNTGIICITIGPASRSVETLKEMIKSGMN  
 VARLNFSHGTHEYHAETIKNVRTATESFASDPILYRPVAVALDTKGPEIRTLIKGSGTAEVELKKGATL  
 KITLDNAYMEKCDENILWLDYKNICKVVEVGSKIYVDDGLISLQVKQKADFLVTEVENGGSLGSKKGVN  
 LPGAAVDLPVSEKDIQDLKFGVEQDVMVFAFIRKASDVHEVRKVLGEKGKNIKIIISKIENHEGVRRF  
 DEILEASDGMVARGDLGIEIPAQKVFVLAQKMMIGRCNRAGKPVICATQMLESMIKKPRPTRAEGSDVAN  
 AVLGDADCIMLSGETAKGDYPLEAVRMQHLIAREAEAAIYHLQLFEELRRLAPITSDPTEATAVGAVEAS  
 FKCCSGAIIIVLTKSGRSAHQVARYRPRAPIIAVTRNPQATARQHLYRGIFPVLCKDPVQEAWAEDVDLRV  
 NFAMNVGKARGFFKKGDVVIVLTGWRPGSGFTNTMRVVPVP

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_002654

**ORF Size:** 1593 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

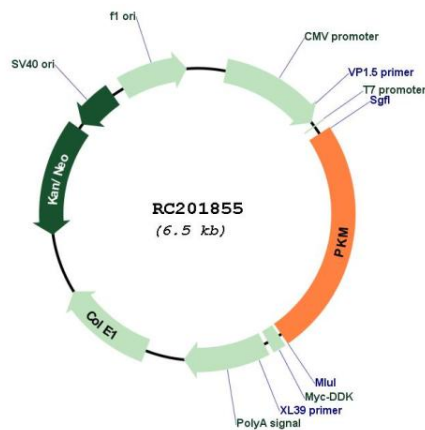
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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).

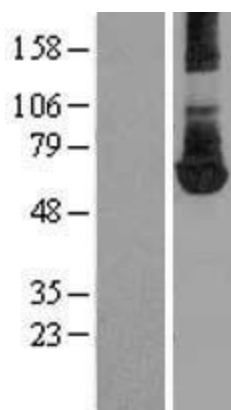
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
  2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
  3. Close the tube and incubate for 10 minutes at room temperature.
  4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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:	<a href="#">NM_002654.6</a>
RefSeq Size:	2516 bp
RefSeq ORF:	1596 bp
Locus ID:	5315
UniProt ID:	<a href="#">P14618</a>
Cytogenetics:	15q23
Domains:	PK
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]

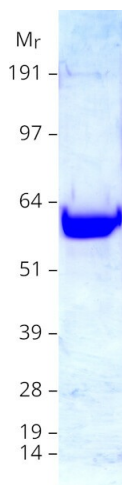
### Product images:



Circular map for RC201855



Western blot validation of overexpression lysate (Cat# [LY419188]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201855 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PKM protein (Cat# [TP301855]). The protein was produced from HEK293T cells transfected with PKM cDNA clone (Cat# RC201855) using MegaTran 2.0 (Cat# [TT210002]).