

Product datasheet for **SC313888**

PKM2 (PKM) (NM_182471) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PKM2 (PKM) (NM_182471) Human Untagged Clone
Tag:	Tag Free
Symbol:	PKM2
Synonyms:	CTHBP; HEL-S-30; OIP3; p58; PK3; PKM2; TCB; THBP1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for NM_182471 edited
 GGCGTCTGGGATGCAGTGGAGCTCAGAGAGAGGAGAACGGCTCCTCACGCCTGGGGCCTG
 CTCTTCAGAAGTCCCCAGCGCCGTTCTTCCAGATCAGGCGGGACCTCAGCAGCCATGTC
 GAAGCCCCATAGTGAAGCCGGGACTGCCTTCATTAGACCCAGCAGCTGCACGCAGCCAT
 GGCTGACACATTCCTGGAGCACATGTGCCGCTGGACATTGATTACCACCCATCACAGC
 CCGGAACACTGGCATCATCTGTACCATTGGCCAGCTTCCCGATCAGTGGAGACGTTGAA
 GGAGATGATTAAGTCTGGAATGAATGTGGCTCGTCTGAACTTCTCTCATGGAACATGA
 GTACCATGCGGAGACCATCAAGAATGTGCGCACAGCCACGGAAAGCTTTGCTTCTGACCC
 CATCCTCTACCGCCCGTTGCTGTGGCTCTAGACACTAAAGGACCTGAGATCCGAACTGG
 GCTCATCAAGGGCAGCGCACTGCAGAGGTGGAGCTGAAGAAGGGAGCCACTCTCAAAT
 CACGCTGGATAACGCCTACATGGAAAAGTGTGACGAGAACATCCTGTGGCTGGACTACAA
 GAACATCTGCAAGGTGGTGAAGTGGGCAGCAAGATCTACGTGGATGATGGGCTTATTTT
 TCTCCAGGTGAAGCAGAAAGGTGCCGACTTCTGGTGACGGAGGTGGAAAATGGTGGCTC
 CTTGGGCAGCAAGAAGGGTGTGAACCTTCTGGGGCTGCTGTGGACTTGCCTGCTGTGTC
 GGAGAAGGACATCCAGGATCTGAAGTTTGGGGTGCAGCAGGATGTTGATATGGTGTTCG
 GTATTATCCGCAAGGCATCTGATGTCCATGAAGTTAGGAAGGTCTGGGAGAGAAGGG
 AAAGAACATCAAGATTATCAGCAAAATCGAGAATCATGAGGGGGTTTCGGAGGTTTGATGA
 AATCCTGGAGGCCAGTGATGGGATCATGGTGGCTCGTGGTGTACTAGGCATTGAGATTCC
 TGCAGAGAAGGTCTTCTTGCTCAGAAGATGATGATTGGACGGTGAACCCGAGCTGGGAA
 GCCTGTGATCTGTGCTACTCAGATGCTGGAGAGCATGATCAAGAAGCCCCGCCCCACTCG
 GGCTGAAGGCAGTGATGTGGCAATGCAGTCTGGATGGAGCCGACTGCATCATGCTGTC
 TGGAGAAAACAGCCAAAGGGGACTATCCTCTGGAGGCTGTGCGCATGCAGCACCTGATAGC
 TCGTGAGGCTGAGGCAGCCATGTTCCACCGCAAGCTGTTTGAAGAAGTTGTGCGAGCCTC
 AAGTCACTCCACAGACCTCATGGAAGCCATGGCCATGGGCAAGCTGGAGGCTTCTTATAA
 GTGTTTAGCAGCAGCTTTGATAGTTCTGACGGAGTCTGGCAGGTCTGCTACCAGGTGGC
 CAGATACCGCCCACGTGCCCCCATATTGCTGTGACCCGGAATCCCAGACAGCTCGTCA
 GGCCACCTGTACCGTGGCATCTTCCCTGTGCTGTGCAAGGACCCAGTCCAGGAGGCCTG
 GGCTGAGGACGTGGACCTCCGGTGAACCTTGGCCATGAATGTTGGCAAGGCCCGAGGCTT
 CTTCAAGAAGGGAGATGTGGTATTGTGCTGACCGGATGGCGCCCTGGCTCCGGCTTAC
 CAACACCATGCGTGTGTTCTGTGCCGTGATGGACCCAGAGCCCTCCTCCAGCCCT
 GTCCACCCCTTCCCCAGCCATCCATTAGGCCAGCAACGCTTGTAGAACTACTCTG
 GGCTGTAACGTGGCACTGGTAGGTTGGGACACCAGGGAAGAAGATCAACGCCTCACTGAA
 ACATGGCTGTGTTTGCAGCCTGCTCTAGTGGGACAGCCAGAGCCTGGCTGCCCATCATG
 TGGCCCCACCAATCAAGGGAAGAAGGAGGAATGCTGGACTGGAGGCCCTGGAGCCAGA
 TGGCAAGAGGGTACAGCTTCTTCTGTGTACTCTGTCCAGTTCCTTTAGAAAAA
 TGGATGCCAGAGGACTCCCAACCCTGGCTTGGGGTCAAGAAAACAGCCAGCAAGAGTTAG
 GGGCTTAGGGCACTGGGCTGTTGTTCCATTGAAGCCGACTCTGGCCCTGGCCCTTACTT
 GCTTCTAGCTCTCTAGGCCTCAGTTTGCACCTGTCCCCACCCTCACTCAGCTGT
 CCTGCAGCAAACACTCCACCCTCCACCTTCCATTTTCCCCCACTACTGCAGCACCTCCAG
 GCCTGTTGCTATAGAGCCTACCTGTATGCAATAAACAACAGCTGAAGCAAAAAAAAAA
 AAAAAA

Restriction Sites: NotI-NotI
ACCN: NM_182471
Insert Size: 2300 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 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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_182471.1](#), [NP_872271.1](#)

RefSeq Size: 2498 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

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]

Transcript Variant: This variant (3) differs in the 5' UTR and coding sequence compared to variant 4. The resulting isoform (b, also called M1) is shorter at the N-terminus compared to isoform c.