

Product datasheet for SC315792

PKM2 (PKM) (NM_002654) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: PKM2 (PKM) (NM_002654) Human Untagged Clone

Tag: Tag Free Symbol: PKM2

Synonyms: CTHBP; HEL-S-30; OIP3; p58; PK3; PKM2; TCB; THBP1

Mammalian Cell None

Selection:

Vector: pCMV6-XL4

E. coli Selection: Ampicillin (100 ug/mL)

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Fully Sequenced ORF:

>OriGene ORF sequence for NM_002654 edited GCCATGGCTGACACATTCCTGGAGCACATGTGCCGCCTGGACATTGATTCACCACCCATC ACAGCCCGGAACACTGGCATCATCTGTACCATTGGCCCAGCTTCCCGATCAGTGGAGACG TTGAAGGAGATGATTAAGTCTGGAATGAATGTGGCTCGTCTGAACTTCTCTCATGGAACT CATGAGTACCATGCGGAGACCATCAAGAATGTGCGCACAGCCACGGAAAGCTTTGCTTCT GACCCCATCCTCTACCGGCCCGTTGCTGTGGCTCTAGACACTAAAGGACCTGAGATCCGA ACTGGGCTCATCAAGGGCAGCGGCACTGCAGAGGTGGAGCTGAAGAAGGGAGCCACTCTC AAAATCACGCTGGATAACGCCTACATGGAAAAGTGTGACGAGAACATCCTGTGGCTGGAC TACAAGAACATCTGCAAGGTGGTGGAAGTGGGCAGCAAGATCTACGTGGATGATGGGCTT ATTTCTCTCCAGGTGAAGCAGAAAGGTGCCGACTTCCTGGTGACGGAGGTGGAAAATGGT GGCTCCTTGGGCAGCAAGAAGGGTGTGAACCTTCCTGGGGCTGCTGTGGACTTGCCTGCT GTGTCGGAGAAGGACATCCAGGATCTGAAGTTTGGGGTCGAGCAGGATGTTGATATGGTG TTTGCGTCATTCATCCGCAAGGCATCTGATGTCCATGAAGTTAGGAAGGTCCTGGGAGAG AAGGGAAAGAACATCAAGATTATCAGCAAAATCGAGAATCATGAGGGGGTTCGGAGGTTT GATGAAATCCTGGAGGCCAGTGATGGGA: TCATGGTGGCTCGTGGTGATCTAGGCATTGA GATTCCTGCAGAGAGGTCTTCCTTGCTCAGAAGATGATGATTGGACGGTGCAACCGAGC TGGGAAGCCTGTCATCTGTGCTACTCAGATGCTGGAGAGCATGATCAAGAAGCCCCGCCC GCTGTCTGGAGAAACAGCCAAAGGGGACTATCCTCTGGAGGCTGTGCGCATGCAGCACCT GATTGCCCGTGAGGCAGAGGCTGCCATCTACCACTTGCAATTATTTGAGGAACTCCGCCG CCTGGCGCCCATTACCAGCGACCCCACAGAAGCCACCGCCGTGGGTGCCGTGGAGGCCTC CTTCAAGTGCTGCAGTGGGGCCATAATCGTCCTCACCAAGTCTGGCAGGTCTGCTCACCA GGTGGCCAGATACCGCCCACGTGCCCCCATCATTGCTGTGACCCGGAATCCCCAGACAGC TCGTCAGGCCC: ACCTGTACCGTGGCATCTTCCCTGTGCTGCAAGGACCCAGTCCAGG AGGCCTGGGCTGAGGACGTGGACCTCCGGGTGAACTTTGCCATGAATGTTGGCAAGGCCC GAGGCTTCTTCAAGAAGGGAGATGTGGTCATTGTGCTGACCGGATGGCGCCCTGGCTCCG GCTTCACCAACACCATGCGTGTTGTTCCTGTGCCGTGA

Restriction Sites: Notl-Notl
ACCN: NM_002654
Insert Size: 2550 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 customport@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:

The ORF of this clone has been fully sequenced and found to be a perfect match to NM 002654.3.

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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: <u>NM 002654.3</u>, <u>NP 002645.3</u>

RefSeq Size: 2479 bp
RefSeq ORF: 1596 bp
Locus ID: 5315
UniProt ID: P14618
Cytogenetics: 15q23
Domains: PK

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 (1) differs in the 5' UTR and coding sequence and has an alternate in-frame coding exon compared to variant 4. The resulting isoform (a, also called M2) is shorter at the N-terminus and has a different internal segment compared to isoform c.