

Product datasheet for **SC319751**

PCK1 (NM_002591) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PCK1 (NM_002591) Human Untagged Clone
Tag:	Tag Free
Symbol:	PCK1
Synonyms:	PCKDC; PEPCK-C; PEPCK1; PEPCKC
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_002591.2
 GGGGACGGCCTTCCCCTGGGAACACAACTTGCTGGCGGGAAGAGCCCGAAAGAAACC
 TGTGGATCTCCCTTCGAGATCATCCAAAGAGAAGAAAGGTGACCTCACATTCGTGCCCT
 TAGCAGCACTCTGCAGAAATGCCTCCTCAGCTGCAAAACGGCCTGAACCTCTCGGCCAAA
 GTTGTCCAGGGAAGCCTGGACAGCCTGCCCCAGGCAGTGAGGGAGTTTCTCGAGAATAAC
 GCTGAGCTGTGTACCTGATCACATCCACATCTGTGACGGCTCTGAGGAGGAGAATGGG
 CGGCTTCTGGCCAGATGGAGGAAGAGGGCATCCTCAGGCGCTGAAGAAGTATGACAAC
 TGCTGGTTGGCTCTCACTGACCCAGGGATGTGGCCAGGATCGAAAGCAAGACGGTTATC
 GTCACCCAAGAGCAAAGAGACACAGTGCCCATCCCCAAAACAGGCCTCAGCCAGCTCGGT
 CGCTGGATGTCAGAGGAGGATTTTGAGAAAAGCGTTCAATGCCAGGTTCCCAGGTCATG
 AAAGGTCGCACCATGTACGTATCCATTAGCATGGGGCCGCTGGGCTCACCTCTGTGC
 AAGATCGGCATCGAGCTGACGGATTGCCCCTACGTGGTGGCCAGCATGCGGATCATGAC
 CGGATGGGCACGCCCTGCTGGAAGCACTGGGCGATGGGAGTTTGTCAAATGCCTCCAT
 TCTGTGGGGTCCCTCTGCCTTACAAAAGCCTTTGGTCAACAACCTGGCCCTGCAACCCG
 GAGCTGACGCTCATCGCCACCTGCCTGACCGCAGAGAGATCATCTCTTTGGCAGTGGG
 TACGGCGGGAACCTCGCTGCTCGGGAAGAAGTGCTTTGCTCTCAGGATGGCCAGCCGGCTG
 GCCAAGGAGGAAGGGTGGCTGGCAGAGCACATGCTGGTTCTGGGTATAACCAACCCTGAG
 GGTGAGAAGAAGTACCTGGCGGCCGATTTCCCAGCGCCTGCGGGAAGACCAACCTGGCC
 ATGATGAACCCAGCCTCCCCGGGTGGAAGGTTGAGTGCCTGGGGATGACATTGCCTGG
 ATGAAGTTTGACGCACAAGGTCAATTAAGGGCCATCAACCCAGAAAATGGCTTTTTCGGT
 GTCGCTCCTGGGACTTCAGTGAAGCAACCCCAATGCCATCAAGACCATCCAGAAGAAC
 ACAATCTTTACCAATGTGGCCGAGACCAGCGACGGGGCGTTTACTGGGAAGGCATTGAT
 GAGCCGCTAGCTTCAGGTGTACCATCACGTCTGGAAGAATAAGGAGTGGAGCTCAGAG
 GATGGGGAACCTTGTGCCACCCCAACTCGAGGTTCTGCACCCCTGCCAGCCAGTGCCCC
 ATCATTGATGCTGCCTGGGAGTCTCCGGAAGGTGTTCCATTGAAGCATTATCTTTGGA
 GGCCGTAGACCTGCTGGTGTCCCTCTAGTCTATGAAGCTCTCAGCTGGCAACATGGAGTC
 TTTGTGGGGCGGCCATGAGATCAGAGGCCACAGCGGCTGCAGAACATAAAGGCAAAATC
 ATCATGCATGACCCCTTTGCCATGCGGCCCTTCTTTGGCTACAACCTTCGGCAAATACCTG
 GCCCACTGGCTTAGCATGGCCAGCACCCAGCAGCCAACTGCCCAAGATCTCCATGTC
 AACTGGTTCGGGAAGGACAAGGAAGGCAAATTCCTCTGGCCAGGCTTTGGAGAGAACTCC
 AGGGTGTGGAGTGGATGTTCAACCGGATCGATGGAAGGCCAGCACCAAGCTCACGCC
 ATAGGCTACATCCCAAGGAGGATGCCCTGAACCTGAAAGGCCTGGGGACATCAACATG
 ATGGAGCTTTTACGATCTCCAAGGAATTCTGGGAGAAGGAGGTGGAAGACATCGAGAAG
 TATCTGGAGGATCAAGTCAATGCCGACCTCCCCTGTGAAATCGAGAGAGAGATCCTTGCC
 TTGAAGCAAAGAATAAGCCAGATGTAATCAGGGCCTGAGTGCTTTACCTTTAAAATCATT
 CCCTTTCCCATCCATAAGGTGCAGTAGGAGCAAGAGAGGGCAAGTGTCCCAAATGACG
 CCACCATAATAATCATCACACACCGGGAGCAGATCTGAAAGGCACACTTTGATTTTTTT
 AAGGATAAGAACCACAGAACACTGGGTAGTAGCTAATGAAATTGAGAAGGGAAATCTTAG
 CATGCCTCCAAAAATTCACATCCAATGCATAGTTTGTCAAATTTAAGGTTACTCAGGCA
 TTGATCTTTTCAGTGTTTTTTTCACTTTAGCTATGTGGATTAGCTAGAATGCACACCAAAA
 AAATACTTGAGCTGTATATATATGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT
 CACATGTGTCTGTGGTATATTTGTGTATGTGTATTTGTATGTACTGTTATTGAAAAATA
 TATTTAATACCTTTGAAAAATCTTGGCAAGATGACCTACTAGTTTTCTTGAAAAAAA
 GTTGCTTTGTTATTAATATTGTGCTTAAATATTTTTTATACACCATTGTTCTTACCTTT
 ACATAATTGCAATATTTCCCTTACTACTTCTTGAAAAAAATACAAAATGAAGTTTT
 AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Restriction Sites: Please inquire

ACCN: NM_002591

OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<ol style="list-style-type: none">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_002591.2 , NP_002582.2
RefSeq Size:	2688 bp
RefSeq ORF:	1869 bp
Locus ID:	5105
UniProt ID:	P35558
Cytogenetics:	20q13.31
Domains:	PEPCK
Protein Families:	Druggable Genome
Protein Pathways:	Adipocytokine signaling pathway, Citrate cycle (TCA cycle), Glycolysis / Gluconeogenesis, Insulin signaling pathway, Metabolic pathways, PPAR signaling pathway, Pyruvate metabolism
Gene Summary:	This gene is a main control point for the regulation of gluconeogenesis. The cytosolic enzyme encoded by this gene, along with GTP, catalyzes the formation of phosphoenolpyruvate from oxaloacetate, with the release of carbon dioxide and GDP. The expression of this gene can be regulated by insulin, glucocorticoids, glucagon, cAMP, and diet. Defects in this gene are a cause of cytosolic phosphoenolpyruvate carboxykinase deficiency. A mitochondrial isozyme of the encoded protein also has been characterized. [provided by RefSeq, Jul 2008]