

## Product datasheet for **RR202791**

### **Pck1 (NM\_198780) Rat Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Pck1 (NM_198780) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Pck1
Synonyms:	GTP; PCK; Pepck; PEPCK-C; RATPEPCK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RR202791 representing NM\_198780  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCCTCCTCAGCTGCATAATGGTCTGGACTTCTCTGCCAAGGTATCCAGGGCAGCCTCGACAGCCTGC  
 CCCAGGAAGTGAGGAAGTTTGTGGAAGCAATGCCAGCTGTGCCAGCCAGAGTATATTCACATCTGCGA  
 CCGCTCCGAGGAGGAGTACGGGGCGCTGCTGGCCACATGCAGGAGGAGGTGTCATCCGCAAGCTGAAG  
 AAATATGACAACCTGTTGGCTGGCTCTCACTGACCCAGGGATGTGGCCAGGATCGAAAGCAAGACGGTCA  
 TCATTACCAAGAGCAGAGAGACACCGTGCCCATCCCCAAAAGTGGGCAGAGCCAGCTGGGCCGCTGGAT  
 GTCAGAAGAGGACTTCGAGAAAGCATTCAACGCCAGGTTCCCGGGGTGCATGAAAGGCCGCACCATGTAT  
 GTCATCCCATTACAGATGGGGCCGCTGGGCTCACCTCTGGCCAAGATTGGTATTGAGCTGACAGACTCGC  
 CCTATGTGGTGGCCAGCATGCGGATCATGACACGGATGGGGACCTCTGTGCTGGAGGCCCTGGGCGATGG  
 GGAGTTTATCAAGTGCCTCCACTCGTGGGGTGCCTCTCCCCTTAAAAAAGCCTTTGGTCAACAACCTGG  
 GCCTGCAACCCCGAGCTGACCCTGATTGCTCACCTCCCGACCGCAGAGAGATCATCTCCTTCGGAAGCG  
 GATACGGTGGAACTCACTGCTTGGGAAGAAATGCTTTGCGTGCAGGATCGCCAGCAGGCTGGCTAAGGA  
 GGAAGGGTGGCTGGCGGAGCACATGCTGATCCTGGGCATAACTAACCCCGAAGGCAAGAAGAAATACCTG  
 GCAGCAGCCTTCCCCAGTGCCTGTGGGAAAACCACTGGCCATGATGAACCCACCCCTCCCCGGGTGGA  
 AAGTTGAATGTGTGGGTGATGACATTGCCTGGATGAAGTTTGTGCCAAGGCAACTAAGGGCCATCAA  
 CCCAGAAAACGGTTTTTTTGGAGTTGCTCCGGCACCTCAGTGAAGACAAATCCGAACGCCATTAAGACC  
 ATCCAGAAAACACCATCTTACCAACGTGGCTGAGACAAGTATGGGGGTGTTTACTGGGAAGGCATCG  
 ATGAGCCCTGGCCAGGAGTACCATCACTTCCCTGGAAGAACAAGAGTGGAGACCACAGGATGAGGA  
 ACCGTGCGCCCATCCCAACTCGCGATTCTGCACCCTGCCAGCCAATGTCCATTATTGACCCCGCCTGG  
 GAATCTCTGAAGGAGTGCCTCGAAGGCATCATTTTTTGGTGGCCGTAGACCTGCAGGTGTCCCCCTTG  
 TCTACGAAGTCTCAGCTGGCAGCATGGGTGTTTGTAGGAGTGCCATGAGATCAGAGGCCACCCTGCTG  
 TGCAGAGCATAAGGGCAAGGTATCATGCACGACCCCTTCGCTATGCGGCCCTTCTTTGGCTACAACCTC  
 GGCAAGTACCTGGCGCACTGGCTGAGCATGGCCACCGCCAGCAGCCAAGTTGCCCAAGATCTTCCACG  
 TCAACTGGTTCGGAAAGACAAAACGGCAAGTCTCTGGCCCGGATTTGGTGAAGTCCCGCGTGTCT  
 GGAGTGGATGTTGCGACGCATCGAAGGGGAAGACAGCGCCAAGTCACTCCATTGGCTACGTCCTAAG  
 GAAGACGCCCTGAACTTGAAGGCTGGGGAGCTCAACGTGGAGGAGCTTTCGGAATCTTAAGGAAT  
 TCTGGGAGAAGGAGTGGAGGAGATCGACAAGTATCTGGAGGACCAGGTCAACGCCGACCTCCCTTACGA  
 AATAGAGAGGGAGCTCCGAGCCCTGAAACAGAGAATCAGCCAGATG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RR202791 representing NM\_198780  
 Red=Cloning site Green=Tags(s)

MPPQLHNLDFSAKVIQGLDSLDPQEVRFVEGNAQLCQPEYIHCIDGSEEEYGRLLAHMQEEGVIRKLLK  
 KYDNCWLALDPRDVARIKSTVITQEQRDTVPIPKSGQSQLGRWMSEEDFEKAFNARFPGCMKGRMTY  
 VIPFSMGLPLGSLAKIGIELTDSYVVASMRIMTRMGTSVLEALGDGEF IKCLHSVGCPLPLKKPLVNNW  
 ACNPELTLIAHLPDRREIISFGSGYGGNSLLGKKCFALRIASRLAKEEGLAEHMLILGITNPEGKKKYL  
 AAAPFSACGKTNLAMNPTLPGWKVECVGDDIAWMKFDAQGNLRINPENGFFGVAPGTSVKTNPNAIKT  
 IQKNTIFTNVAETSDGGVYWEIDEPLAPGVTITSWKNKEWRPQDEEPCAHNSRFCTPASQCPIIDPAW  
 ESPEGVPIEGIFGRRPAGVPLVYEALSWQHGVFVGAAMRSEATAAAEHKGVIMHDPFAMRPFYGNF  
 GKYLAWHL SMAHRPAAKLPKIFHVNWFRKDKNGKFLWPGFGENSRVLEWMFGRIEGEDSAKLTPIGYVPK  
 EDALNLKGLGDVNVEELFGISKEFEVEEIDKYLEQVNADLPYEIERELRALKQRISQM

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_198780

**ORF Size:** 1866 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.

**RefSeq:** [NM\\_198780.3](#), [NP\\_942075.1](#)

**RefSeq Size:** 2644 bp

**RefSeq ORF:** 1869 bp

**Locus ID:** 362282

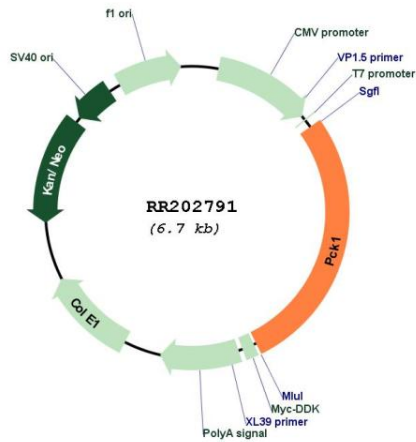
**UniProt ID:** [P07379](#)

**Cytogenetics:** 3q42

**MW:** 69.4 kDa

**Gene Summary:** Regulates cataplerosis and anaplerosis, the processes that control the levels of metabolic intermediates in the citric acid cycle. At low glucose levels, it catalyzes the cataplerotic conversion of oxaloacetate (OAA) to phosphoenolpyruvate (PEP), the rate-limiting step in the metabolic pathway that produces glucose from lactate and other precursors derived from the citric acid cycle. At high glucose levels, it catalyzes the anaplerotic conversion of phosphoenolpyruvate to oxaloacetate.[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for RR202791