

## Product datasheet for **MR209511**

### **Pck1 (NM\_011044) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Pck1 (NM_011044) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Pck1
Synonyms:	A1265463; Pck-1; PEPCK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR209511 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGCCTCCTCAGCTGCATAACGGTCTGGACTTCTCTGCCAAGGTCATCCAGGGCAGCCTCGACAGCCTGC  
 CCCAGGCAGTGAGGAAGTTCGTGGAAGCAATGCTCAGCTGTGCCAGCCGAGTATATCCACATCTGCGA  
 TGGCTCCGAGGAGGAGTACGGGAGTTGCTGACCCACATGCAGGAGGAGGGTGCATCCGCAAGCTGAAG  
 AAATATGACAACCTGTTGGCTGGCTCTCACTGACCTCGAGATGTGGCCAGGATCGAAAGCAAGACAGTCA  
 TCATCACCAAGAGCAGAGAGACACAGTGCCCATCCCCAAAAGTGGCTCAGCCAGCTGGGCCGCTGGAT  
 GTCGGAAGAGGACTTTGAGAAAGCATTCAACGCCAGGTTCCAGGGTGCATGAAAGGCCGACCATGTAT  
 GTCATCCATTGAGTGGGCCACTGGCTCGCCGCTGGCCAAGATTGGTATTGAACTGACAGACTCGC  
 CCTATGTGGTGGCCAGCATGCGGATCATGACTCGGATGGGCATATCTGTGCTGGAGGCCCTGGGAGATGG  
 GGAGTTCAAGTGCCTGCACTCTGTGGGGTGCCTCTCCCCTTAAAAAAGCCTTTGGTCAACAACCTGG  
 GCCTGCAACCCTGAGTGACCTGATCGCCACCTCCCGACCGCAGAGAGATCATCTCCTTTGGAAGCG  
 GATATGGTGGAACTCACTACTCGGGAAGAAATGCTTTGCGTTGCGGATCGCCAGCCGCTCTGGCTAAGGA  
 GGAAGGGTGGCTGGCGGAGCATATGCTGATCCTGGGCATAACTAACCCCGAAGGCAAGAAGAAATACCTG  
 GCCGCAGCCTTCCTAGTGCCTGTGGGAAGACCAACTGGCCATGATGAACCCAGCCTGCCCGGGTGGGA  
 AGGTCGAATGTGTGGCGGATGACATCGCCTGGATGAAGTTTGTGCCCCAAGGCAACTAAGGGCTATCAA  
 CCCAGAAAACGGGTTTTTTGGAGTTGCTCCTGGCACCTCAGTGAAGACAAATCCAATGCCATAAAACC  
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 ATGAGCCGCTGGCCCGGAGTACCATCACCTCCTGGAAGAACAAGGAGTGGAGACCCGACGACGCGGA  
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 TCTATGAAGCCCTCAGCTGGCAGCATGGGGTGTGTAGGAGCAGCCATGAGATCTGAGGCCACAGCTGC  
 TGCAGAACACAAGGGCAAGATCATCATGCACGACCCCTTTGCCATGCGACCCCTTCTCGGCTACAACTTC  
 GGCAAATACCTGGCCACTGGCTGAGCATGGCCACCGCCAGCAGCCAAGTTGCCCAAGATCTTCCATG  
 TCAACTGGTTCGGAAGGACAAAGATGGCAAGTCTCTGGCCAGGCTTTGGCGAGAAGTCCCGGGTGT  
 GGAGTGGATGTTGGGCGGATTGAAGGGGAAGACAGCGCCAAGCTCACGCCCATCGGCTACATCCCTAAG  
 GAAAACGCCTTGAACCTGAAAGGCTGGGGGGCTCAACGTGGAGGAGCTTTTGGGATCTCTAAGGAGT  
 TCTGGGAGAAGGAGTGGAGGAGATCGACAGGTATCTGGAGGACCAGGTCAACACCGACCTCCCTTACGA  
 AATTGAGAGGGAGCTCCGAGCCCTGAAACAGAGAATCAGCCAGATG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

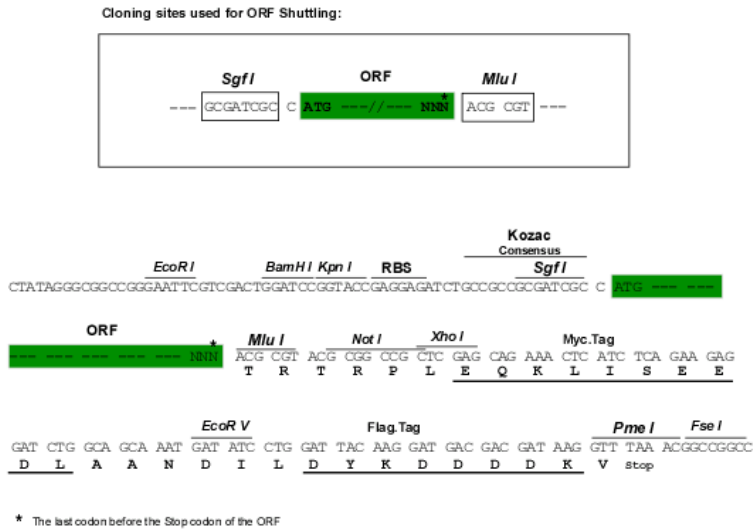
>MR209511 protein sequence  
 Red=Cloning site Green=Tags(s)

MPPQLHNLDFSAKVIQGLDSLDPQAVRKFVEGNAQLCQPEYIHCIDGSEEEYQQLLTHMQEEGVIRKLLK  
 KYDNCWLALTDPRDVARIKSTVITQEQRDTVPIPKTGLSQLGRWMSEEDFEKAFNARFPGCMKGRMTY  
 VIPFSMGPLGSPLAKIGIELTDSYVVASMRIMTRMISVLEALGDGEF IKCLHSVGCPLPLKKPLVNNW  
 ACNPELTLIAHLPDRREIISFGSGYGGNSLLGKKCFALRIASRLAKEEGLAEHMLILGITNPEGKKKYL  
 AAAPFSACGKTNLMMNPSLPGWKVECVGDDIAWMKFDAQGNLRINPENGFFGVAPGTSVKTNPNAIKT  
 IQKNTIFTNVAETSDGGVYWEIDEPLAPGVTITSWKNKEWRPQDAEPCAHNSRFCTPASQCPIIDPAW  
 ESPEGVPIEGIFGRRPEGVPLVYEALSWQHGVFVGAAMRSEATAAAEHKGIIMHDPFAMRPFYGNF  
 GKYLAWHL SMAHRPAAKLPKIFHVNWFRKDKGFLWPGFGENSRVLEWMFGRIEGEDSAKLTPIGYIPK  
 ENALNLKGLGGVNVEELFGISKEFEVEEIDRYLEDQVNTDLPYEIERELRALKQRISQM

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_011044

**ORF Size:** 1869 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\\_011044.1](#), [NM\\_011044.2](#), [NP\\_035174.1](#)

**RefSeq Size:** 2617 bp

**RefSeq ORF:** 1869 bp

**Locus ID:** 18534

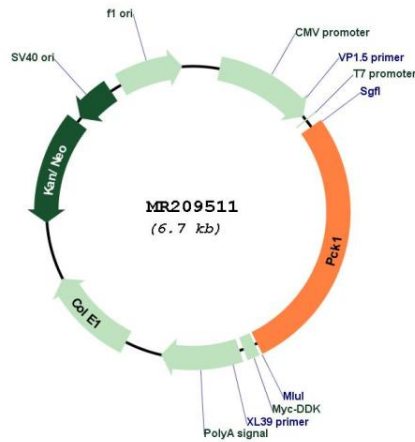
**UniProt ID:** [Q9Z2V4](#)

**Cytogenetics:** 2 95.79 cM

**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 MR209511