

## Product datasheet for **RC200354**

### **PCK2 (NM\_004563) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PCK2 (NM_004563) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PCK2
Synonyms:	PEPCK; PEPCK-M; PEPCK2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide  
Sequence:

>RC200354 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGGCCGCATTGTACCGCCTGGCCTGCGGCTTAAGTGGCATGGGCTGAGCCCTTGGGCTGGCCATCAT  
 GCCGTAGCATCCAGACCCTGCGAGTGCTTAGTGGAGATCTGGCCAGCTTCCCACTGGCATTGAGATTT  
 TGTAGAGCACAGTGCCCGCTGTGCCAACCAGAGGGCATCCACATCTGTGATGGAAGTGGAGCTGAGAA  
 ACTGCCACACTGACCCTGCTGGAGCAGCAGGGCCTCATCCGAAAGCTCCCCAAGTACAATAACTGCTGGC  
 TGGCCCGCACAGACCCCAAGGATGTGGCAGAGTATAGAGCAAGACGGTGATTGTAAGTCTTCTCAGCG  
 GGACACGGTACCACTCCCGCTGGTGGGCGCCGTGGCAGCTGGGCAACTGGATGTCCCACTGATTTTC  
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 TGGGTCTGTGGCTCCCGCTGTCCCGCATCGGGGTGCAGCTCACTGACTCAGCCTATGTGGTGGCAAG  
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 CCTGCTGGGCAAGAAGTCTTTGCCCTACGCATCGCCTCTCGGCTGGCCCGGGATGAGGGCTGGCTGGCA  
 GAGCAGTGTGATCCTGGGCATCACCAGCCCTGCAGGGAAGAAGCGCTATGTGGCAGCCGCTTCCCTA  
 GTGCTGTGGCAAGCAACCTGGCTATGATGCGGCTGCACTGCCAGGCTGGAAGTGGAGTGTGTGGG  
 GGATGATATTGCTGGATGAGGTTTACAGTGAAGGTGACTCCGGGCCATCAACCCTGAGAAGCGCTTC  
 TTTGGGTTGCCCTGGTACCTCTGCCACCACCAATCCCAACCCATGGCTACAATCCAGAGTAACACTA  
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 CTGGCGTCATGGGGTGTGTGGGCGAGCCATGCGCTCTGAGTCCACTGCTGCAGCAGAACACAAAGGG  
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 ACTGGCTGAGCATGGAAGGGCGCAAGGGGGCCAGCTGCCCGTATCTTCCATGTCAACTGGTCCGGCG  
 TGACGAGGCAGGGCACTTCTGTGGCCAGGCTTTGGGAGAAATGCTCGGGTGTAGACTGGATCTGCCGG  
 CGTTAGAGGGGAGGACAGTGCCCGAGAGACCCATTGGGCTGGTCCAAAGGAAGGAGCCTTGGATC  
 TCAGCGGCTCAGAGCTATAGACACCACTCAGCTGTTCTCCCTCCCAAGGACTTCTGGGAACAGGAGGT  
 TCGTGACATTCGAGCTACCTGACAGAGCAGGTCAACCAGGATCTGCCAAAGAGGTGTTGGCTGAGCTT  
 GAGGCCCTGGAGAGACGTGTGCACAAAATG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC200354 protein sequence  
Red=Cloning site Green=Tags(s)

```
MAALYRPLRLNWHGLSPLGWPSCRSIQTLRVLSGDLGQLPTGIRDFVEHSARLCQPEGIHCIDGTEAEN
TATLTLLLEQQGLIRKLPKYNWCWARTDPKDVARVESKTVIVTPSQRDTVPLPPGGARGQLGNWMSPADF
QRAVDERFPGCMQGRMTMYVLPFSGMPVGSPLSRIGVQLTDSAYVVASMRIMTRLGTPVLQALGDGDFVKC
LHSVQPLTGQGEVPSQWPCNPEKTLIGHVDPQREIISFGSGYGGNSLLGKKCFALRIASRLARDEGWLA
EHMLILGITSPAGKKRYVAAAFPSACGKTNLAMMRPALPGWKVECVGDDIAWMRFDSEGRLRAINPENGF
FGVAPGTSATTNPAMATIQSNTIIFTNVAETSDGGVYWEGIDQPLPPGVTVTSWLGKPKPGDKEPCAHP
NSRFCAPARQCPIMDPAWEAPEGVPIDAIIFGRRPKGVPLVYEAFNWRHGVFVGSAMRSESTAAAHEKKG
KIIMHDPFAMRPFYGFYNGHYLEHWLSMEGRKGAQLPRIFHVNWFRDEAGHFLWPFGFGENARVLDWICR
RLEGEDSARETPIGLVPKEGALDLSGLRAIDTTQLFSLPKDFWEQEVDRIRSYLEQVNDLPKEVLAEL
EALERRVHKM
```

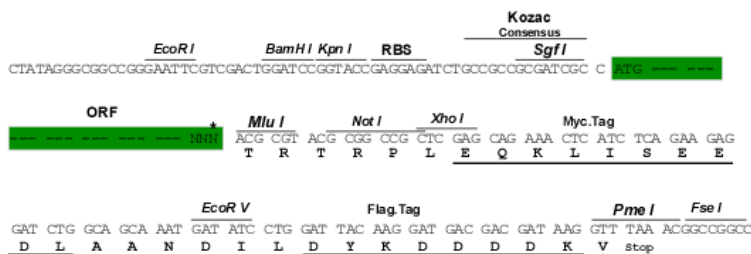
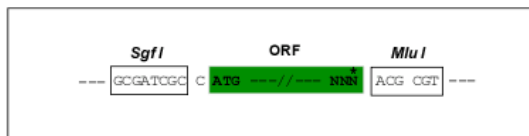
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6199\\_f04.zip](https://cdn.origene.com/chromatograms/mk6199_f04.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_004563

**ORF Size:** 1920 bp

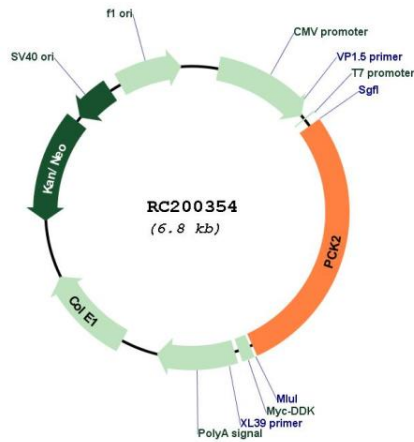
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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.

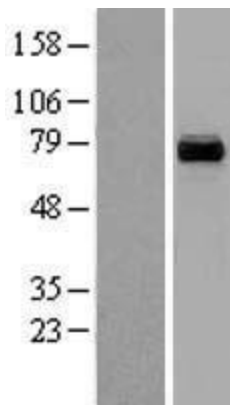
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_004563.4</a>
<b>RefSeq Size:</b>	2380 bp
<b>RefSeq ORF:</b>	1923 bp
<b>Locus ID:</b>	5106
<b>UniProt ID:</b>	<a href="#">Q16822</a>
<b>Cytogenetics:</b>	14q11.2-q12
<b>Domains:</b>	PEPCK
<b>Protein Families:</b>	ES Cell Differentiation/IPS
<b>Protein Pathways:</b>	Adipocytokine signaling pathway, Citrate cycle (TCA cycle), Glycolysis / Gluconeogenesis, Insulin signaling pathway, Metabolic pathways, PPAR signaling pathway, Pyruvate metabolism
<b>MW:</b>	70.7 kDa
<b>Gene Summary:</b>	This gene encodes a mitochondrial enzyme that catalyzes the conversion of oxaloacetate to phosphoenolpyruvate in the presence of guanosine triphosphate (GTP). A cytosolic form of this protein is encoded by a different gene and is the key enzyme of gluconeogenesis in the liver. Alternatively spliced transcript variants have been described. [provided by RefSeq, Apr 2014]

Product images:



Circular map for RC200354



Western blot validation of overexpression lysate (Cat# [LY401446]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200354 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).