

## Product datasheet for **MR210302**

### **Pcca (NM\_144844) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Pcca (NM_144844) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Pcca
Synonyms:	C79630
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>MR210302 representing NM\_144844  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGGCGGGCAGTGGGTCAAGACCGTGGCGCTGTTGGCGCCAGGCGCATTGGCGCGGTCTCGCAGC  
 AGCAATTGCTGGGACGCTGAAGCATGCTCCAGTCTATTCATACCAATGCCTAGTGGTGTCCAGAAGTCT  
 CAGTTCTGTGGAATATGAGCCTAAAGAAAAGACTTTTGATAAAAATTCTCATTGCTAACAGAGGAGAAAT  
 GCCTGTAGGGTTATTAATACTTGAAGAAGATGGGCATCAAGACAGTTGCCATTACAGTGATGTTGATG  
 CCAGTTCTGTTACGTGAAAATGGCGGATGAGGCTGTCTGTGTTGGCCAGCTCCCACCAGTAAAAGCTA  
 CCTCAACATGGATGCCATCATGGAAGCCATTAAGAAAACCAGGGCCCAAGCTGTACACCCAGGGTATGGA  
 TTCCTGTCAGAAAACAAGAGTTTGCAAAGCGTCTGGCAGCAGAAGATGTCACCTTCATTGGACCTGATA  
 CTCATGCTATTCAAGCCATGGGTGACAAGATAGAAAGCAAACCTATTAGCCAAGAGAGCAAAGGTCAACAC  
 AATCCCTGGTTTTGATGGGTAGTAAAGGATGCAGATGAAGCTGTCAGAATTGCAAGGAAATTGGCTAC  
 CCTGTGATGATCAAGGCCCTCAGCAGGCGGTGGTGGGAAAGGCATGCGCATCGCCTGGGATGACGAAGAGA  
 CCAGGGATGGCTTTAGATTTTATCCCAGGAAGCTGCTTCTAGTTTTGGTGTATGATAGACTACTAATAGA  
 AAAATTTATCGATAACCCCTCGTCATATAGAAATCCAGTTTTAGGGGATAAACATGGCAATGCTCTGTGG  
 CTCAATGAGAGGGAGTGCCTCGATCCAGAGAAGGAACCAGAAGGTGGTAGAGGAGGCGCAAGCATTTTTTC  
 TGGATCCTGAAACTCGCCAAGCAATGGGAGAGCAGGCCGTGGCTTTGGCTAAAGCCGTGAAGTATTTCTC  
 TGCTGAACTGTGGAATTTCTTGTGGACTCCCAGAAGAATTTTACTTCTGGAGATGAATAACAAGACTA  
 CAGGTGCAACATCCTGTCACAGAGTGCATTACTGGCCTGGACTTAGTCCAAGAAATGATCCTTGTGCTA  
 AGGTTACCCACTCAGGCACAAGCAAGAGGATATCCCATCAGTGGCTGGGCAGTTGAATGTCGGGTTTA  
 TGCTGAGGACCCCTACAAGTCTTTCGGTTTACCGTCTATTGGGAGGCTGTCCAGTACCAAGAGCCGATA  
 CATCTACCTGGTGTCCGAGTTGACAGTGGCATCCAACCAGGAAGTGACATCAGCATCTATTATGATCCTA  
 TGATTTCAAAGCTAGTCACATATGGGTCTGACAGAGCAGAAGCCCTGAAGAGGATGGAAGACGCACTGGA  
 CAATTATGTGATCCGGGGTGTACACACAACATCCCATTGCTCCGGGAGGTGATAATCAACACACGTTTT  
 GTGAAAGGAGACATCAGCACTAAGTTTCTCTGTGATGTGTATCCTGATGGCTTCAAAGGGCACACGTTAA  
 CACTGAGTGAGAGAAACCAGTTATTGGCCATTGCATCATCTGATTTTGTGGCATCCCAGCTACGAGCTCA  
 GCGCTTCCAAGAACATCAAGAGTACCAGTTATTAGCCCTGATGTGGCTAAGTGGGAGCTCTCGGTAAG  
 TTACATGATGAAGATCATACTGTCGTGGCATCTAACAATGGGCCGGCATTACCCTGGAAGTTGATGGCT  
 CGAAACTAAATGTGACCAGTACGTGGAACCTGGGTCACCCTATTGTCTGTCAACGTTGATGGCAGCA  
 GAGGACTGTGCAGTGTCTTCTCGGGAAGCAGGTGGAACATGAGCATCCAGTTTCTTGGCACAGTGTAC  
 AAAGTGACATTTTAACCAAGCTTGTGACAGAGCTGAACAAATTCATGCTTGAAAAGTGCCCAAGGACA  
 CCAGCAGCACTCTGTGCTCCCGATGCCTGGAGTGGTGGTGGCCGTTTCTGTCAAGCCTGGAGACATGGT  
 AGCAGAAGGTGAGGAAATCTGTGTGATTGAAGCTATGAAAATGCAGAACAGTATGACAGCTGGGAAATG  
 GGCAAGGTGAAATTTGGTGCAGTGCAAAGCTGGAGACACAGTTGGTGAAGGAGACCTGCTTGTGGAGCTGG  
 AA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR210302 representing NM\_144844  
Red=Cloning site Green=Tags(s)

MAGQWVRTVALLAARRHWRSSQQQLLGLTKHAPVYSYQCLVVSRSLSSEVEPEKETFDKILIANRGEI  
 ACRVIKCKKMGIKTVAIHSDVDASSVHVKMADEAVCVGPAPTSKSYLNMDAIMEAIKKTRAQAVHPGYG  
 FLSENKEFAKRLAAEDVTFIGPDTHAIQAMGDKIESKLLAKRAKVNTIPGFDGVVKDAEAVRIAREIGY  
 PVMIKASAGGGGKMRIAWDDEETRDGFRFSSQEAASSFGDDRLLIEKFIDNPRHIEIQVLGDKHGNALW  
 LNERECSIQRRNQVVEEAPSIFLDPETROAMGEQAVALAKAVKYSSAGTVEFLVDSQKNFYFLEMNTRL  
 QVEHPVTECITGLDLVQEMILVAKGYPLRHKQEDIPISGWAVECRVYAEDPYKSFGLPSIGRLSQYQEPI  
 HLPGVRVDSGIQPGSDISIIYYDPMISKLVTYGSDRAEALKRMEDALDNYVIRGVTHNIPLREVIINTRF  
 VKGDISTKFLSDVYPDFGKHTLTLERNQLLAIASSVFVASQLRAQRFQEHSRVPVIRPDVAKWELSVK  
 LHDEDHTVVASNNGPAFTVEVDGSKLNVSTWNLASPLL SVNVDGTQRTVQCLSREAGGNMSIQFLGTVY  
 KVHILTKLAAELNKFMLEKVPKDTSSSTLCSPMPGVVVAVSVKPGDMVAEGQEICVIEAMKMQNSMTAGKM  
 GKVKLVHCKAGDTVGEGLLVELE

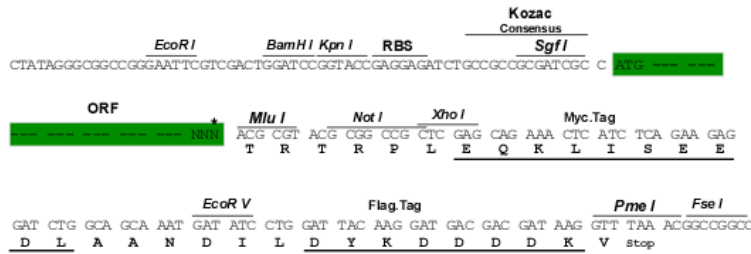
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mm9047\\_e01.zip](https://cdn.origene.com/chromatograms/mm9047_e01.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\_144844

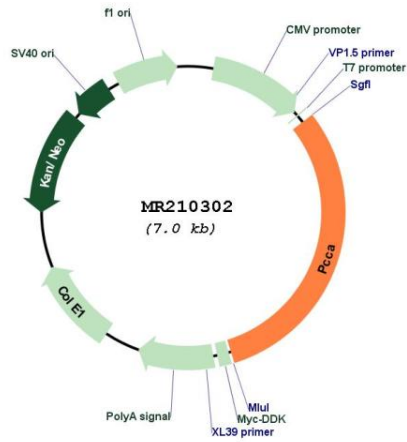
**ORF Size:** 2172 bp

**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.

<b>Components:</b>	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>RefSeq:</b>	<a href="#">NM_144844.2</a> , <a href="#">NP_659093.2</a>
<b>RefSeq Size:</b>	2603 bp
<b>RefSeq ORF:</b>	2175 bp
<b>Locus ID:</b>	110821
<b>UniProt ID:</b>	<a href="#">Q91ZA3</a>
<b>Cytogenetics:</b>	14 65.99 cM
<b>MW:</b>	80.4 kDa
<b>Gene Summary:</b>	<p>This is one of the 2 subunits of the biotin-dependent propionyl-CoA carboxylase (PCC), a mitochondrial enzyme involved in the catabolism of odd chain fatty acids, branched-chain amino acids isoleucine, threonine, methionine, and valine and other metabolites. Propionyl-CoA carboxylase catalyzes the carboxylation of propionyl-CoA/propanoyl-CoA to D-methylmalonyl-CoA/(S)-methylmalonyl-CoA (By similarity). Within the holoenzyme, the alpha subunit catalyzes the ATP-dependent carboxylation of the biotin carried by the biotin carboxyl carrier (BCC) domain, while the beta subunit then transfers the carboxyl group from carboxylated biotin to propionyl-CoA (By similarity). Propionyl-CoA carboxylase also significantly acts on butyryl-CoA/butanoyl-CoA, which is converted to ethylmalonyl-CoA/(2S)-ethylmalonyl-CoA (By similarity). Other alternative minor substrates include (2E)-butenoyl-CoA/crotonoyl-CoA (By similarity).[UniProtKB/Swiss-Prot Function]</p>

Product images:



Circular map for MR210302