OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for SC120017

PCCA (NM_000282) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PCCA (NM_000282) Human Untagged Clone
Tag:	Tag Free
Symbol:	PCCA
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

View online »

Fully Sequenced ORF:

>NCBI ORF sequence for NM_000282, the custom clone sequence may differ by one or more nucleotides

ATGGCGGGGTTCTGGGTCGGGACAGCACCGCTGGTCGCTGCCGGACGGCGTGGGCGGTGGCCGCCGCAGC
AGCTGATGCTGAGCGCGGCGCTGCGGACCCTGAAGCATGTTCTGTACTATTCAAGACAGTGCTTAATGGT
GTCCCGTAATCTTGGTTCAGTGGGATATGATCCTAATGAAAAAACTTTTGATAAAATTCTTGTTGCTAAT
AGAGGAGAAATTGCATGTCGGGTTATTAGAACTTGCAAGAAGATGGGCATTAAGACAGTTGCCATCCACA
GTGATGTTGATGCTAGTTCTGTTCATGTGAAAATGGCGGATGAGGCTGTCTGTGTTGGCCCAGCTCCCAC
CAGTAAAAGCTACCTCAACATGGATGCCATCATGGAAGCCATTAAGAAAACCAGGGCCCAAGCTGTACAT
CCAGGTTATGGATTCCTTTCAGAAAACAAAGAATTTGCCAGATGTTTGGCAGCAGAAGATGTCGTTTTCA
TTGGACCTGACACACATGCTATTCAAGCCATGGGCGACAAGATTGAAAGCAAATTATTAGCTAAGAAAGC
AGAGGTTAATACAATCCCTGGCTTTGATGGAGTAGTCAAGGATGCAGAAGAAGCTGTCAGAATTGCAAGG
GAAATTGGCTACCCTGTCATGATCAAGGCCTCAGCAGGTGGTGGTGGGAAAGGCATGCGCATTGCTTGGG
ATGATGAAGAGACCAGGGATGGTTTTAGATTGTCATCTCAAGAAGCTGCTTCTAGTTTTGGCGATGATAG
ACTACTAATAGAAAAATTTATTGATAATCCTCGTCATATAGAAATCCAGGTTCTAGGTGATAAACATGGG
AATGCTTTATGGCTTAATGAAAGAGAGTGCTCAATTCAGAGAAGAAATCAGAAGGTGGTGGAGGAAGCAC
CAAGCATTTTTTTGGATGCGGAGACTCGAAGAGCGATGGGAGAACAAGCTGTAGCTCTTGCCAGAGCAGT
AAAATATTCCTCTGCTGGGACCGTGGAGTTCCTTGTGGACTCTAAGAAGAATTTTTATTTCTTGGAAATG
AATACAAGACTCCAGGTTGAGCATCCTGTCACAGAATGCATTACTGGCCTGGACCTAGTCCAGGAAATGA
TCCGTGTTGCTAAGGGCTACCCTCTCAGGCACAAACAAGCTGATATTCGCATCAACGGCTGGGCAGTTGA
ATGTCGGGTTTATGCTGAGGACCCCTACAAGTCTTTTGGTTTACCATCTATTGGGAGATTGTCTCAGTAC
CAAGAACCGTTACATCTACCTGGTGTCCGAGTGGACAGTGGCATCCAACCAGGAAGTGATATTAGCATTT
ATTATGATCCTATGATTTCAAAACTAATCACATATGGCTCTGATAGAACTGAGGCACTGAAGAGAATGGC
AGATGCACTGGATAACTATGTTATTCGAGGTGTTACACATAATATTGCATTACTTCGAGAGGTGATAATC
AACTCACGCTTTGTAAAAGGAGACATCAGCACTAAATTTCTCTCCGATGTGTATCCTGATGGCTTCAAAG
GACACATGCTAACCAAGAGTGAGAAGAACCAGTTATTGGCAATAGCATCATCATTGTTTGTGGCATTCCA
GTTAAGAGCACAACATTTTCAAGAAAATTCAAGAATGCCTGTTATTAAACCAGACATAGCCAACTGGGAG
CTCTCAGTAAAATTGCATGATAAAGTTCATACCGTAGTAGCATCAAACAATGGGTCAGTGTTCTCGGTGG
AAGTTGATGGGTCGAAACTAAATGTGACCAGCACGTGGAACCTGGCTTCGCCCTTATTGTCTGTCAGCGT
TGATGGCACTCAGAGGACTGTCCAGTGTCTTTCTCGAGAAGCAGGTGGAAACATGAGCATTCAGTTTCTT
GGTACAGTGTACAAGGTGAATATCTTAACCAGACTTGCCGCAGAATTGAACAAATTTATGCTGGAAAAAG
TGACTGAGGACACAAGCAGTGTTCTGCGTTCCCCGATGCCCGGAGTGGTGGTGGCCGTCTCTGTCAAGCC
TGGAGACGCGGTAGCAGAAGGTCAAGAAATTTGTGTGATTGAAGCCATGAAAATGCAGAATAGTATGACA
GCTGGGAAAACTGGCACGGTGAAATCTGTGCACTGTCAAGCTGGAGACACAGTTGGAGAAGGGGATCTGC
TCGTGGAGCTGGAATGA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000282 unedited
GTTCAAATTTGTATACGACTCACTATAGGCGGCCGCGAATTCGCACGAGGCTGGGTCGGG
ACAGCACCGCTGGTCGCTGCCGGACGGCGTGGGCGGTGGCCGCCGCAGCAGCTGATGCTG
AGCGCGGCGCTGCGGACCCTGAAGCATGTTCTGTACTATTCAAGACAGTGCTTAATGGTG
TCCCGTAATCTTGGTTCAGTGGGATATGATCCTAATGAAAAAACTTTTGATAAAATTCTT
GTTGCTAATAGAGGAGAAATTGCATGTCGGGTTATTAGAACTTGCAAGAAGATGGGCATT
AAGACAGTTGCCATCCACAGTGATGTTGATGCTAGTTCTGTTCATGTGAAAATGGCGGAT
GAGGCTGTCTGTGTTGGCCCAGCTCCCACCAGTAAAAGCTACCTCAACATGGATGCCATC
ATGGAAGCCATTAAGAAAACCAGGGCCCAAGCTGTACATCCAGGTTATGGATTCCTTTCA
GAAAACAAAGAATTTGCCAGATGTTTGGCAGCAGAAGATGTCGTTTTCATTGGACCTGAC
ACACATGCTATTCAAGCCATGGGCGACAAGATTGAAAGCAAATTATTAGCTAAGAAAGCA
GAGGTTAATACAATCCCTGGCTTTGATGGAGTAGTCAAGGATGCAGAAGAAGCTGTCAGA
ATTGCAAGGGAAATTGGCTACCCTGTCATGATCAAGGCCTCAGCAGGTGGTGGTGGGAAA
GGCATGCGCATTGCTTGNGATGATGAAGAGACCAGNGATGGTTNTAGATTGTCATCTCAA
GAAGCTGCTTCTAGTTTTGGCGATGATAGACTACTAATAGAAAAATTTATTGATAATCCT
CGTCATATAGAAATCCCNAGTTCTAGTGATAAACATGGNGAATGCTTATGGCTTAATGAA
GAGAGTGCTCATTTCAGAGAAC

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_000282 unedited
ATGGACCGCGCCGCAATCTAGGATCGAGTTTTTTTTTTTTTTTTTTATTTAGACAAATGC
TCAGTTTTATTGATTTAATTTTGACACTAGGGAATCTCACAGCAGAAGTACAAATCATAT
GTACAAGTATTTATATCAATGAAAATTTCCATTGGTGATTTTTTGGCAGAATATTGGTCT
TGACTCTGTGGAATAAATGACGACGTAAACGTAGCTGCACAGGGGTGTTCCTGTATAATG
CTTGAATCAATTGTGTGTGAAAGCATCATGCAAATGGCTAATTAAATTGGGTGATGACTG
AAAGGTTATAAATCCTTCATTCCAGCTCCACGAGCAGATCCCCTTCTCCAACTGTGTCTC
CAGCTTGACAGTGCACAGATTTCACCGTGCCAGTTTTCCCAGCTGTCATACTATTCTGCA
TTTTCATGGCTTCAATCACACAAATTTCTTGACCTTCTGCTACCGCGTCTCCAGGCTTGA
CAGAGACGGCCACCACCACTCCGGGCATCGGGGAACGCAGAACACTGCTTGTGTCCTCAG
TCACTTTTTCCAGCATAAATTTGTTCAATTCTGCGGCAAGTCTGGTTAAGATATTCACCT
TGTACACTGTACCAAGAAACTGAATGCTCATGTTTCCACCTGCTTCTCGAGAAAACACTG
GACAGTCCTCTGAGTGCCATCAACGCTGACAGACAATAAGGGCGAAGCCAGGTTCCACGT
GCTGGTCACATTTAGTTTCGACCCATCAACTTCCACCGAGAACACTGACCCCATGNNTGA
TGCTACTACGGTATGAACTTTATCATGCAATTNTACTGAGAGCTCCCAGNTGGCTATGTC
TGGTTTAATACCAGCATTNCTGAAATTTCTTGAAAATGTGTGCTCTTACTGGAATGCCAC
AACATGATGATGCTATTGCAATACTGG

Restriction Sites: NotI-NotI

ACCN: NM_000282

Insert Size: 2500 bp

OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery. 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
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_000282.1, NP_000273.1
RefSeq Size:	2577 bp
RefSeq ORF:	2577 bp
Locus ID:	5095
UniProt ID:	P05165
Cytogenetics:	13q32.3
Domains:	biotin_lipoyl, CPSase_L_D2, CPSase_L_chain, Biotin_carb_C
Protein Families:	Druggable Genome
Protein Pathways:	Metabolic pathways, Propanoate metabolism, Valine, leucine and isoleucine degradation
Gene Summary:	The protein encoded by this gene is the alpha subunit of the heterodimeric mitochondrial enzyme Propionyl-CoA carboxylase. PCCA encodes the biotin-binding region of this enzyme. Mutations in either PCCA or PCCB (encoding the beta subunit) lead to an enzyme deficiency resulting in propionic acidemia. Multiple transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, May 2010] Transcript Variant: This variant (1) encodes the longest isoform (a). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.