

Product datasheet for **RG202481**

PCB (PC) (NM_022172) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PCB (PC) (NM_022172) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PC
Synonyms:	PCB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG202481 representing NM_022172 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCTGAAGTTCGAACAGTCCATGGGGCCTGAGGCTCCTGGGAATCCGCCGAACCTCCACCGCCCCG
CTGCCCTCCCAAATGTCCGGCCTGGAGTATAAGCCCATCAAGAAAGTCATGGTGGCAACAGAGGTGA
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GACACGGGCCAGATGCACCGGCAGAAAGCAGATGAAGCCTATCTCATCGCCCGCGCCTGGCCCCGTGC
AGGCTACCTGCACATCCAGACATCATCAAGGTGGCCAAGGAGAACAACGTAGATGCAGTGCACCTGG
CTACGGGTTCTCTCTGAGCGAGCGGACTTCGCCAGGCCTGCCAGGATGCAGGGGTCCGGTTTATTGGG
CCAAGCCAGAAGTGGTCCGCAAGATGGGAGACAAGGTGGAGGCCCGGGCCATCGCCATTGCTGCGGGT
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CAACCAGCAGTTCCTGGCAGGCACTGTGGACCCAGTTCATCGACGAGAACCAGAGCTGTTCCAGCTG



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CGGCCTGCACAGAACCGGGCCAAAAGCTGTTGCACTACCTCGGCCATGTCATGGTAAACGGTCCAACCA
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ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

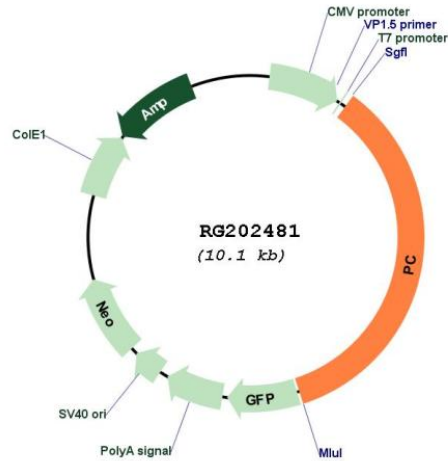
Protein Sequence: >RG202481 representing NM_022172
 Red=Cloning site Green=Tags(s)

MLKFRTVHGGLRLLGIRRTSTAPAASPNVRRLEYKPIKKVMVANRGEIAIRVFRACTELGIRTVAIYSEQ
 DTGQMRHQKADEAYLIGRGLAPVQAYLHIPDIIKVAKENNVDAVHPGYGFLSERADFAQCQDAGVRFIG
 PSPEVVRKMGDKVEARAIAAAGVPVPGTDAPITSLHEAHEFSNTYGFPIIFKAAAYGGGRMRVVHSY
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 AHLDPQLRTRLTSDSVKLAQVGYENAGTVEFLVDRHGKHYFIEVNSRLQVEHTVTEEITDVLVHAQIH
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 HYDSSLVKVIAHGKDHPATAATKMSRALAEFRVRGVKTNIAFLQNVLNNQQFLAGTVDTQFIDENPELFQL
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 PGLLLMDTTFRDAHQSSLATRVRTHDLKKIAPYVAHNFSKLFSMENWGGATFDVAMRFLYECPWRRQL
 RELIPNIPFQMLLRGANAVGYTNYPDNVVFKFCEVAKENGMDVFRVFDLSLNYLPNMLLGMEAAGSAGGVV
 EAAISYTDVADPSRTKYSLQYYMGLAEELVRAGTHILCIKDMAGLLKPTACTMLVSSLRDRFPDLPLHI
 HTHTDSGAGVAAMLACAQAGADVVDVAADSMGSMGTSQPSMGALVACTRGTPLDTEVPMERVFYSEYWEG
 ARGLYAAFDCATMKSNGSDVYENEIPGGQYTNLHFQAHSMGLGSKFKEVKKAYEANQMLGDLIKVTPS
 SKIVGDLAQFMVQNGLSRAEAEQAEEELSFPRSVVEFLQGYIGVPHGGFPEPFRSKVLKDLPRVEGRPGA
 SLPLDLQALEKELVDRHGEEVTPEDVLSAAMYPDVFAHFKDFATATFGPLDSLNTLRLFLQGPKIAEEFEV
 ELERGKTLHIKALAVSDLNRAGQRQVFFELNGQLRSILVKDTQAMKEMHFHPKALKDVKQGIGAPMPGKV
 IDIKVVAGAKVAKGQPLCVLSAMKMETVVTSPMEGTVRKVHVHTKDMTLEGDDLILEIE

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI
 Cloning Scheme:



Plasmid Map:


ACCN: NM_022172

ORF Size: 3534 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_022172.3](#)

RefSeq Size: 3959 bp

RefSeq ORF: 3537 bp

Locus ID: 5091

UniProt ID: [P11498](#)

Cytogenetics: 11q13.2

Protein Families:	Druggable Genome
Protein Pathways:	Citrate cycle (TCA cycle), Metabolic pathways, Pyruvate metabolism
Gene Summary:	This gene encodes pyruvate carboxylase, which requires biotin and ATP to catalyse the carboxylation of pyruvate to oxaloacetate. The active enzyme is a homotetramer arranged in a tetrahedron which is located exclusively in the mitochondrial matrix. Pyruvate carboxylase is involved in gluconeogenesis, lipogenesis, insulin secretion and synthesis of the neurotransmitter glutamate. Mutations in this gene have been associated with pyruvate carboxylase deficiency. Alternatively spliced transcript variants with different 5' UTRs, but encoding the same protein, have been found for this gene. [provided by RefSeq, Jul 2008]