

# Recombinant Full Length Human PC Protein, C-Flag-tagged

**Cat. No.** PC-1561HFL    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Full Length Human PC Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Source</b>           | Mammalian Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Description</b>      | <p>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.</p> |
| <b>Form</b>             | 25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Molecular Mass</b>   | 127.4 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>AA Sequence</b>      | MLKFRTVHGGLRLLGIRRTSTAPAASPNVRRLEYKPIKKVMVANRGEIAIRVFRACTE<br>LGIRTVAIYSEQ DTGQMHRQKADEAYLIGRGLAPVQAYLHIPDIIKVAKENNVDAVHP<br>GYGFLSERADFAQACQDAGVRFIG PSPEVVRKMGDKVEARAIAIAAGVPVVPGTDA<br>PITSLHEAHEFSNTYGFPIIFKAAAYGGGGRGMRVVHSY EELEENYTRAYSEALAAFG<br>NGALFVEKFIEKPRHIEVQILGDQYGNILHLYERDCSIQRRHQKVVEIAPA AHLDPQL                                                                                                                                                                                                                                                                                                   |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

RTRLTSDSVKLAKQVGYENAGTVEFLVDRHGKHYFIEVNSRLQVEHTVTEEITDVDL  
VHAQIH VAEGRSLPDLGLRQENIRINGCAIQCRVTTEDPARSFQPD TGRIEVFRSGE  
GMGIRLDNASAFQGAVISP HYDSLLVKVIAHGKDHPTAATKMSRALAEFRVRGVKT  
NIAFLQNVLNNQQFLAGTVDTQFIDENPELFQL RPAQNRAQKLLHYLGHV MVNGPT  
TPIPVKASPSPTDPVPAVPIGPPPAGFRDILLREGPEGFARAVRNH PGLLLMDTTF  
RDAHQSLLATRVRTHDLKKIAPYVAHNFSKLFSMENWGGATFDVAMRFLYEC PWR  
RLQEL RELIPNIPFQMLLRGANAVGYTNYPDNVVFKECEVAKENGMDVFRVFD SLN  
YLPNMLLGMEAAGSAGGVV EAAISYTG DVADPSRTKYSLQYYMGLAEELVRAGTHI  
LCIKDMAGLLKPTACTMLVSSLRDRFPDLPLHI HTHDTSGAGVAAMLACAQAGADV  
VDVAADSMMSGMTSQPSMGALVACTRG TPLDTEVPMERVF DYSEYWE G ARGLYAA  
FDCTATMKSGNSDVYENEIPGGQYTNLHFQAHSMGLGSKFKEVKKAYVEANQMLG  
DLIKVTPS SKIVGDLAQFMVQNGLSRAEAE AQAEELSFP RSVVEFLQGYIGVPHGGF  
PEPFRSKVLKDLPRVEGRPGA SLPPLDLQALEKELVDRHGEEVTPEDVLSAAMY PD  
VFAHFKDFTATFGPLDSL NTRLFLQGPKIAEEFEV ELERGKTLHIKALAVSDLNRAGQ  
RQVFFELNGQLRSILVKDTQAMKEMHFHPKALKDVKGQIGAPMPGKV  
IDIKVVAGAKVAKGQPLCVLSAMKMETVVTSPMEGT VRKVHVTKDMTLEGDDLILEIE  
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

|                      |                                                                                                                                               |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity</b>        | > 80% as determined by SDS-PAGE and Coomassie blue staining.                                                                                  |
| <b>Stability</b>     | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles. |
| <b>Storage</b>       | Store at -80 centigrade.                                                                                                                      |
| <b>Concentration</b> | >50 ug/mL as determined by microplate BCA method.                                                                                             |
| <b>Preparation</b>   | Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.                              |

|                         |                                                                    |
|-------------------------|--------------------------------------------------------------------|
| <b>Protein Families</b> | Druggable Genome                                                   |
| <b>Protein Pathways</b> | Citrate cycle (TCA cycle), Metabolic pathways, Pyruvate metabolism |
| <b>Full Length</b>      | Full L.                                                            |

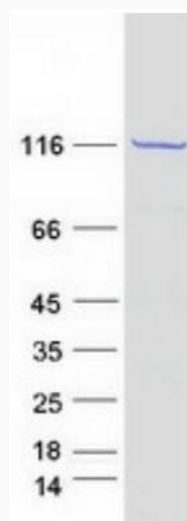
## GENE INFORMATION

|                        |                                                  |
|------------------------|--------------------------------------------------|
| <b>Gene Name</b>       | PC pyruvate carboxylase [ Homo sapiens (human) ] |
| <b>Official Symbol</b> | PC                                               |
| <b>Synonyms</b>        | PCB                                              |
| <b>Gene ID</b>         | 5091                                             |
| <b>mRNA Refseq</b>     | NM_000920.4                                      |
| <b>Protein Refseq</b>  | NP_000911.2                                      |
| <b>MIM</b>             | 608786                                           |
| <b>UniProt ID</b>      | P11498                                           |

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Coomassie blue staining of purified PC protein.

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