

# Recombinant Human Phosphoenolpyruvate Carboxykinase 1, His-tagged

**Cat. No.** PCK1-1372H    **Lot. No.** (See product label)

## SPECIFICATION

<b>Product Overview</b>	Recombinanthuman PCK1protein, fused to His-tag at N-terminus, was expressed in E.coli andpurified by using conventional chromatography techniques.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>Description</b>	<p>PCK1 is a maincontrol point for the regulation of gluconeogenesis. PCK1 plays an importantrole in this process by stimulating hepatic glucose production.</p> <p>Theexpression of PCK1 can be regulated by insulin, glucocorticoids, glucagon,cAMP, and diet. Modulation of the signals governing PCK1 levels presents apotential therapeutic approach to the treatment of Insulin resistance andconsequently obesity.</p>
<b>Form</b>	Liquid. In 20 mMTris-HCl buffer (pH 8.0) containing 1 mM DTT, 10% glycerol, 0.1M NaCl.
<b>Molecular Weight</b>	71.7 kDa(646 aa)
<b>Purity</b>	> 90%by SDS-PAGE
<b>Concentration</b>	0.5 mg/ml(determined by Bradford assay)
<b>Sequences of aminoacids</b>	MGSSHHHHHHSSGLVPRGSH MGSHPMPQLQ NGLNLSAKVV QGSLDSLPPQA VR EFLNNAE LCQPDHIHICDGSEEENGRL LGQMEEEGIL RRLKKYDNCW LALTDPR

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DVA RIESKTVIVTQEQRDTVPIIP KTGLSQLGRW MSEEDFEKAF NARFPGCMKG R  
 TMYVIPFSM GPLGSPLSKI GIELTDSPLYVVASMRIMTRM GTPVLEALGD GEFVKCL  
 HSV GCPLPLQKPL VNNWPCNPEL TLIAHLPDRR EIISFGSGYGGNSLLGKKCFALR  
 MASRLAKEEGWLAEHML VLGITNPEGE KKYLAAPFS ACGKTNLMM NPSLPGW  
 KVE CVGDDIAWMK FDAQGHRLRAINPENGGFGVA PGTSVKTNPN AIKTIQKNTI FT  
 NVAETSDG GYVWEGIDEP LASGVTITSW KNKEWSSEDGEPECAHPNSRF CTPASQ  
 CPII DAAWESPEGV PIEGIIFGGRRPAGVPLVYE ALSWQHGVFV GAAMRSEATA A  
 AEHKGKIIM HDPFAMRPF GYNFGKYLAH WLSMAQHPPAAKLPKIFHVNW FRKDK  
 EGKFL WPGFGNSRV LEWMFNRIDG KASTKLTPIG YIPKEDALNL KGLGHINMME  
 LFSISKEFWE KEVEDIEKYL EDQVNADLPC EIEREILALK QRISQM

**Storage**

Can bestored at +4°C short term (1-2 weeks). For long term storage, aliquot andstore at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

**Pathways**

Adipocytokine signalingpathway; Adipogenesis;Citrate cycle (TCA cycle); Diabetes pathways; FOXA2 and FOXA3 transcription factor networks;Gluconeogenesis; Glucose metabolism; Glycolysis/Gluconeogenesis; Insulinsignaling pathway; Metabolic pathways; PPAR signaling pathway; Proximaltubule bicarbonate reclamation; Pyruvate metabolism; TranscriptionalRegulation of White Adipocyte Differentiation

## GENE INFORMATION

**Gene Name**

PCK1 phosphoenolpyruvatecarboxykinase 1 (soluble) [ Homo sapiens ]

**Official Symbol**

PCK1

**Synonyms**

PCK1; phosphoenolpyruvatecarboxykinase 1; PEPCK1; PEPCKC; PEPCK-C; MGC22652; phosphoenolpyruvatecarboxykinase, cytosolic [GTP]; PEP carboxykinase; OTTHUMP00000031374;phosphopyruvate carboxylase;

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phosphoenolpyruvate carboxylase;phosphoenolpyruvate carboxykinase, cytosolic;  
EC 4.1.1.32

**Gene ID** [5105](#)

**mRNA Refseq** [NM\\_002591](#)

**Protein Refseq** [NP\\_002582](#)

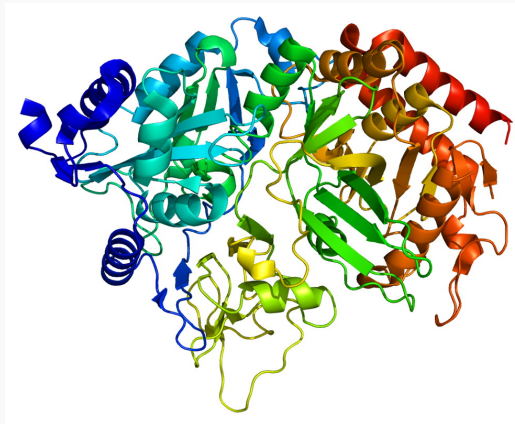
**MIM** [261680](#)

**UniProt ID** [P35558](#)

**Chromosome  
Location** 20q13.31

**Function** GDP binding; GTP binding;Carboxylic acid binding; lyase activity; Magnesium ion binding; Manganese ionbinding; Phosphoenolpyruvate carboxykinase (GTP) activity;Phosphoenolpyruvate carboxykinase (GTP) activity; Purine nucleotide binding

**PDB rendering based  
on 1khh.**



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