

Recombinant Human Phosphoenolpyruvate Carboxykinase 1, His-tagged

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

SPECIFICATION

Product Overview	Recombinanthuman PCK1protein, fused to His-tag at N-terminus, was expressed in E.coli andpurified by using conventional chromatography techniques.
Species	Human
Source	E.coli
Description	PCK1 is a maincontrol point for the regulation of gluconeogenesis. PCK1 plays an importantrole in this process by stimulating hepatic glucose production. 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.
Form	Liquid. In 20 mMTris-HCl buffer (pH 8.0) containing 1 mM DTT, 10% glycerol, 0.1M NaCl.
Molecular Weight	71.7 kDa(646 aa)
Purity	> 90%by SDS-PAGE
Concentration	0.5 mg/ml(determined by Bradford assay)
Sequences of aminoacids	MGSSHHHHHHSSGLVPRGSH MGSHPMPQLQ NGLNLSAKVV QGSLDSLPGA VR EFLENNAE LCQPDHIHICDGSEEENGRL LGQMEEEGIL RRLKKYDNCW LALTDPR

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DVA RIESKTVIVTQEQRDTVPIIP KTGLSQLGRW MSEEDFEKAF NARFPGCMKG R
 TMYVIPFSM GPLGSPLSKI GIELTDSPLYVVASMRIMTRM GTPVLEALGD GEFVKCL
 HSV GCPLPLQKPL VNNWPCNPPEL TLIAHLPDRR EIISFGSGYGGNSLLGKKCFALR
 MASRLAKEEGWLAEHML VLGITNPEGE KKYLAAPFAPS ACGKTNLMM NPSLPGW
 KVE CVGDDIAWMK FDAQGHLRAINPENGFFGVA PGTSVKTNPN AIKTIQKNTI FT
 NVAETSDG GVVWEGIDEP LASGVTITSW KNKEWSSEDGEPECAHPNSRF CTPASQ
 CPII DAAWESPEGV PIEGIIFGRRPAGVPLVYE ALSWQHGVFV GAAMRSEATA A
 AEHKGKIIM HDPFAMRPFF GYNFGKYLAH WLSMAQHPPAAKLPKIFHVNW FRKDK
 EGKFL WPGFGENSRLV 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 1khb.	