

Recombinant Human Pyruvate dehydrogenase kinase, isozyme 1, His-tagged

Cat. No. PDK1-123H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human PDK1 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques, 48.6 kDa (429 aa).
Species	Human
Source	E.coli
Description	PDK1 (pyruvate dehydrogenase kinase isoform 1) is involved in the regulation of enzymatic activity of mammalian pyruvate dehydrogenase (PDH) that is a part of a mitochondrial multienzyme complex to catalyze the oxidative decarboxylation of pyruvate and is one of the major enzymes responsible for the regulation of homeostasis of carbohydrate fuels in mammals. PDK1 has been found to serve as an effective therapeutic target for inhibition of glioblastoma growth.
Sequences of amino acids	MGSSHHHHHH SGLVPRGSH MSSDSGSSPA SERGVPGQVD FYARFSPSPL SMKQFLDFGS VNACEKTSFM FLRQELPVRL ANIMKEISLL PDNLLRTPSV QLVQSWYIQS LQELDFKDK SAEDAKAIYD FTDTVIRIRN RHNDVIPTMA QGVIEYKESF GVDPVTSQNV QYFLDRFYMS RISIRMLLNQ HSLFLGGKKG GSPSHRKHIG SINPNCNVLE VIKDGYENAR RLCDLYYINS PELELEELNA KSPGQPIQVV YVPSHLYHMV FELFKNAMRA TMEHHANRGV YPPIQVHRTL GNEDLTVKMS DRGGGVPLRK IDRLFNYMYS TAPRPRVETS RAVPLAGFGY GLPISRLYAQ YFQGDLKLYS LEGYGTDAVI YIKALSTDSI ERLPVYNKAA

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WKHYNTNHEA DDWCVPSREP KDMTFRSA

Formulation

Liquid. In 20 mM Tris-HCl buffer (pH 7.0) containing 100 mM NaCl, 0.5 mM DTT, 0.1 mM EDTA, 0.1 mM PMSF, 1 mM MgCl₂, 40% glycerol

Purity

> 95% by SDS - PAGE

Concentration

0.5 mg/ml (determined by Bradford assay)

Storage

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

GENE INFORMATION

Gene Name

[PDK1 pyruvate dehydrogenase kinase, isozyme 1 \[Homo sapiens \]](#)

Synonyms

EC 2.7.11.2; PDPK1; Pyruvate dehydrogenase kinase isoform 1; mitochondrial pyruvate dehydrogenase, lipoamide, kinase isoenzyme 1; pyruvate dehydrogenase kinase 1; pyruvate dehydrogenase kinase, isoenzyme 1; pyruvate dehydrogenase kinase, isozyme 1; PDK1; [Pyruvate dehydrogenase [lipoamide]] kinase isozyme 1, mitochondrial

Gene ID

[5163](#)

mRNA Refseq

[NM_002610](#)

Protein Refseq

[NP_002601](#)

MIM

[602524](#)

UniProt ID

[Q15118](#)

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Chromosome Location	2q31.1
Pathway	Fc epsilon RI signaling pathway; T cell receptor signaling pathway; Integration of energy metabolism
Function	ATP binding; nucleotide binding; pyruvate dehydrogenase (acetyl-transferring) kinase activity; transferase activity; two-component sensor activity

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