

Recombinant Human PDK4 Protein (M1-M411), Tag Free

Cat. No. PDK4-0621H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Human PDK4(1-411end) Protein was expressed in E. coli.

Species Human

Source E.coli

ProteinLength M1-M411

Description

Kinase that plays a key role in regulation of glucose and fatty acid metabolism and homeostasis via phosphorylation of the pyruvate dehydrogenase subunits PDHA1 and PDHA2. This inhibits pyruvate dehydrogenase activity, and thereby regulates metabolite flux through the tricarboxylic acid cycle, down-regulates aerobic respiration and inhibits the formation of acetyl-coenzyme A from pyruvate. Inhibition of pyruvate dehydrogenase decreases glucose utilization and increases fat metabolism in response to prolonged fasting and starvation. Plays an important role in maintaining normal blood glucose levels under starvation, and is involved in the insulin signaling cascade. Via its regulation of pyruvate dehydrogenase activity, plays an important role in maintaining normal blood pH and in preventing the accumulation of ketone bodies under starvation. In the fed state, mediates cellular responses to glucose levels and to a high-fat diet. Regulates both fatty acid oxidation and de novo fatty acid biosynthesis. Plays a role in the generation of reactive oxygen species. Protects detached epithelial cells against anoikis. Plays a role in cell proliferation via its role in regulating carbohydrate and fatty acid metabolism.

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Form	Liquid
Endotoxin	< 0.01 EU per µg of the protein
Purity	90%
Stability	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.
Storage	Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Storage Buffer	Supplied as sterile 50 mM Tris-HCl (pH7.5), 200 mM NaCl, 20% glycerol
Shipping	It is shipped out with blue ice.

GENE INFORMATION

Gene Name	PDK4 pyruvate dehydrogenase kinase, isozyme 4 [Homo sapiens (human)]
Official Symbol	PDK4
Synonyms	PDK4; pyruvate dehydrogenase kinase, isozyme 4; pyruvate dehydrogenase kinase, isoenzyme 4; pyruvate dehydrogenase, lipoamide, kinase isozyme 4, mitochondrial; [Pyruvate dehydrogenase [lipoamide]] kinase isozyme 4, mitochondrial; FLJ40832;
Gene ID	5166
mRNA Refseq	NM_002612
Protein Refseq	NP_002603

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MIM	602527
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UniProt ID	Q16654
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