

# PGK1 Recombinant Human Phosphoglycerate Kinase 1

**Cat. No.** PGK1-187H    **Lot. No.** (See product label)

## SPECIFICATION

### Product Overview

Recombinant PGK1 protein was expressed in *E.coli* and purified by using conventional chromatography techniques. MW = 46.8 kDa (437aa)

### Species

Human

### Source

*E.coli*

### Description

Phosphoglycerate kinase 1 (PGK1) is an X-linked enzyme that plays a key role in the glycolytic pathway. The gene encoding the erythrocyte enzyme PGK1 and it seems that PGK-1 acts as a polymerase alpha cofactor protein (primer recognition protein) as a glycolytic enzyme role. The PGK1 catalyzes the reversible conversion of 1,3-diphosphoglycerate to 3-phosphoglycerate during glycolysis, generating one molecule of ATP.

### Amino Acid Sequence


MGSSHHHHHH SSGLVPRGSH MSLSNKLTLD KLDVKGKRVV MRVDFNVPMK  
 NNQITNNQRI KAAVPSIKFC LDNGAKSVVL MSHLGRPDGV PMPDKYSLEP  
 VAVELKSLLG KDVLFLKDCV GPEVEKACAN PAAGSVILLE NLRFHVEEEG  
 KGKDASGNKV KAEPAKIEAF RASLSKLGDV YVNDAFGTAH RAHSSMVGVN  
 LPQKAGGFLM KKELNYFAKA LESPFPFLA ILGGAKVADK IQLINMLDK  
 VNEMIIGGM AFTFLKVLNN MEIGTSLFDE EGAKIVKDLM SKAEKNGVKI  
 TLPVDFVTAD KFDENAKTGQ ATVASGIPAG WMGLDCGPES SKKYAEAVTR  
 AKQIVWNGPV GVFEWEAFAR GTKALMDEVV KATSRGCITI IGGGDTATCC  
 AKWNTEDKVS HVSTGGGASL ELLEGKVLPG VDALSNI.

### Form

Liquid. In 20 mM Tris (pH 8.0), containing 10% Glycerol, 1mM DTT.

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<b>Purity</b>	> 95% by SDS – PAGE.
<b>Concentration</b>	1 mg/ml (determined by Bradford assay).
<b>Endotoxin Level</b>	< 1.0 EU per 1 µg of protein (determined by LAL method).
<b>Storage</b>	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

<b>Gene Name</b>	PGK1 phosphoglycerate kinase 1 [ Homo sapiens ]
<b>Synonyms</b>	PGK1; phosphoglycerate kinase 1; PGKA; MIG10; MGC8947; MGC117307; MGC142128; primer recognition protein 2; cell migration-inducing gene 10 protein; EC 2.7.2.3; PRP 2; OK/SW-cl.110; OTTHUMP00000023595
<b>Gene ID</b>	5230
<b>mRNA Refseq</b>	NM_000291
<b>Protein Refseq</b>	NP_000282
<b>MIM</b>	311800
<b>UniProt ID</b>	P00558
<b>Chromosome Location</b>	Xq13.3
<b>Pathway</b>	from terpenoid and polyketide; Biosynthesis of alkaloids derived from histidine and

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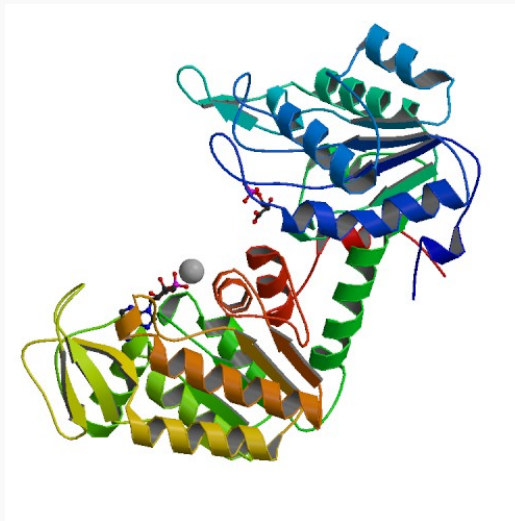
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purine; Biosynthesis of alkaloids derived from ornithine, lysine and nicotinic acid; Biosynthesis of alkaloids derived from shikimate pathway; Biosynthesis of alkaloids derived; Biosynthesis of phenylpropanoids; Biosynthesis of plant hormones; Biosynthesis of terpenoids and steroids; Carbon fixation in photosynthetic organisms; Glycolysis / Gluconeogenesis; Metabolic pathways; Diabetes pathways; Integration of energy metabolism; Metabolism of carbohydrates

**Function**


ATP binding; nucleotide binding; phosphoglycerate kinase activity; transferase activity

**PDB rendering based on 1hdi.**



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