

PGK1 Recombinant Human Phosphoglycerate Kinase 1

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

SPECIFICATION

Product Overview	Recombinant PGK1 protein was expressed in <i>E. coli</i> and purified by using conventional chromatography techniques. MW = 46.8 kDa (437aa)
Species	Human
Source	<i>E. coli</i>
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	MGSSHHHHH SSGLVPRGSH MSLSNKLTD KLDVKGKRVV MRVDFNVPMK NNQITNNQRI KAAVPSIKFC LDNGAKSVVL MSHLGRPDGV PMPDKYSLEP VAVELKSLLG KDVLFKDCV GPEVEKACAN PAAGSVILLE NLRFHVEEEG KGKDASGNKV KAEPAKIEAF RASLSKLGDV YVNDAFGTAH RAHSSMVGVN LPQKAGGFLM KKELNYFAKA LESP RPFLA ILGGAKVADK IQLINNMLDK VNEMIIGGGM 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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Purity	> 95% by SDS – PAGE.
Concentration	1 mg/ml (determined by Bradford assay).
Endotoxin Level	< 1.0 EU per 1 µg of protein (determined by LAL method).
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	PGK1 phosphoglycerate kinase 1 [Homo sapiens]
Synonyms	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
Gene ID	5230
mRNA Refseq	NM_000291
Protein Refseq	NP_000282
MIM	311800
UniProt ID	P00558
Chromosome Location	Xq13.3
Pathway	from terpenoid and polyketide; Biosynthesis of alkaloids derived from histidine and

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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.

