

## Active Recombinant Human PGK1 protein, His-tagged

**Cat. No.** PGK1-191H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant PGK1 protein was expressed in E.coli and purified by using conventional chromatography techniques.                                                                                                                                                                                                                                                                                                                      |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Description</b>      | 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. |
| <b>Form</b>             | Liquid. In 20 mM Tris (pH 8.0), containing 10% Glycerol, 1mM DTT.                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Bio-activity</b>     | Specific activity: > 600 units/mg. One unit will convert 1 umole of 1,3-Bisphosphoglycerate to 3-PGA per minute at pH 8.0 at 37C.                                                                                                                                                                                                                                                                                                   |
| <b>Molecular Mass</b>   | 46.8 kDa (437aa), confirmed by MALDI-TOF                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>AA Sequence</b>      | MGSSHHHHHH SSGLVPRGSH MSLSNKLTL DLDVKGKRVV MRVDFNVPMK<br>NNQITNNQRI KAAVPSIKFC LDNGAKSVVL MSHLGRPDGV PMPDKYSLEP<br>VAVELKSLLG KDVLFLKDCV GPEVEKACAN PAAGSVILLE NLRFHVEEEG<br>KGKDASGNKV KAEPAKIEAF RASLSKLGDV YVNDAFGTAH RAHSSMVGVN                                                                                                                                                                                                 |

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LPQKAGGFLM KKELNYFAKA LESPERPFLA ILGGAKVADK IQLINNMLDK  
VNEMIIGGGM AFTFLKVLNN MEIGTSLFDE EGAKIVKDLM SKAEKNGVKI  
TLPVDFVTAD KFDENAKTGQ ATVASGIPAG WMGLDCGPES SKKYAEAVTR  
AKQIVWNGPV GVFEWEAFAR GTKALMDEVV KATSRGCITI IGGGDTATCC  
AKWNTEDKVS HVSTGGGASL ELLEGKVLPG VDALSNI

**Endotoxin** < 1.0 EU per 1 microgram of protein (determined by LAL method)

**Purity** > 95% by SDS - PAGE

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

**Concentration** 1 mg/ml (determined by Bradford assay)

## GENE INFORMATION

**Gene Name** PGK1 phosphoglycerate kinase 1 [ Homo sapiens ]

**Official Symbol** PGK1

**Synonyms** PGK1; phosphoglycerate kinase 1; PRP 2; primer recognition protein 2; cell migration-inducing gene 10 protein; PGKA; MIG10; MGC8947; MGC117307; MGC142128;

**Gene ID** 5230

**mRNA Refseq** NM\_000291

**Protein Refseq** NP\_000282

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|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>MIM</b>                 | 311800                                                                                                                                                                                                                                                                                |
| <b>UniProt ID</b>          | P00558                                                                                                                                                                                                                                                                                |
| <b>Chromosome Location</b> | Xq13.3                                                                                                                                                                                                                                                                                |
| <b>Pathway</b>             | Gluconeogenesis, organism-specific biosystem; Gluconeogenesis, oxaloacetate => fructose-6P, organism-specific biosystem; Gluconeogenesis, oxaloacetate => fructose-6P, conserved biosystem; Glucose metabolism, organism-specific biosystem; Glycolysis, organism-specific biosystem; |
| <b>Function</b>            | ATP binding; nucleotide binding; phosphoglycerate kinase activity; phosphoglycerate kinase activity; transferase activity;                                                                                                                                                            |

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