

Active Recombinant Human PGK1 protein, His-tagged

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

SPECIFICATION

Product Overview	Recombinant PGK1 protein was expressed in E.coli and purified by using conventional chromatography techniques.
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.
Form	Liquid. In 20 mM Tris (pH 8.0), containing 10% Glycerol, 1mM DTT.
Bio-activity	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.
Molecular Mass	46.8 kDa (437aa), confirmed by MALDI-TOF
AA Sequence	MGSSHHHHHH SGLVPRGSH MSLSNKLTLD KLDVKGKRVV MRVDFNVPMK NNQITNNQRI KAAVPSIKFC LDNGAKSVVL MSHLGRPDGV PMPDKYSLEP VAVELKSLLG KDVLFLKDCV GPEVEKACAN PAAGSVILLE NLRFHVEEEG KGDASGNKV KAEPKIEAF 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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MIM	311800
UniProt ID	P00558
Chromosome Location	Xq13.3
Pathway	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;
Function	ATP binding; nucleotide binding; phosphoglycerate kinase activity; phosphoglycerate kinase activity; transferase activity;

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