

Recombinant human PGK1 protein

Catalog Number: ATGP3249

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-417aa

UniProt No.

P00558

NCBI Accession No.

NP_000282

Alternative Names

Phosphoglycerate kinase 1, Cell migration-inducing gene 10 protein, Primer recognition protein 2, PRP 2, PGKA, MIG10

PRODUCT SPECIFICATION

Molecular Weight

46.8 kDa (437aa) confirmed by MALDI-TOF

Concentration

1mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol, 1mM DTT

Purity

> 95% by SDS-PAGE

Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity

Specific activity: > 600unit/mg. One unit will convert 1 umole of 1,3-Bisphosphoglycerate to 3-PGA per minute at pH 8.0 at 37C.

Tag

His-Tag

Application

SDS-PAGE, Enzyme Activity

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

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BACKGROUND

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. Recombinant PGK1 protein was expressed in *E. coli* and purified by using conventional chromatography techniques.

Amino acid Sequence

MGSSHHHHHHH SSSLVPRGSH MSLSNKLTLD KLDVKGKRIV MRVDFNVPMK NNQITNNQRI KAAVPSIKFC LDNGAKSVVL MSHLGRPDGV PMPDKYSLEP VAVELKSLLG KDLVFLKDCV GPEVEKACAN PAAGSVILLE NLRFHVEEEG KGKDASGNKV KAEPKIEAF RASLSKLGDV YVNDAFGTAH RAHSSMVGVN LPQKAGGFLM KKELNYFAKA LESPERPFLA ILGGAKVADK IQLINMLDK VNEMIIGGM AFTFLKVLNN MEIGTSLFDE EGAKIVKDLN SKAEKNGVKI TLPVDFVTAD KFDENAKTGQ ATVASGIPAG WMGLDCGPES SKKYAEAVTR AKQIVWNGPV GVFEWEAFAR GTKALMDEVV KATSRGCITI IGGGDTATCC AKWNTEDKVS HVSTGGGASL ELLEGKVLPG VDALSNI

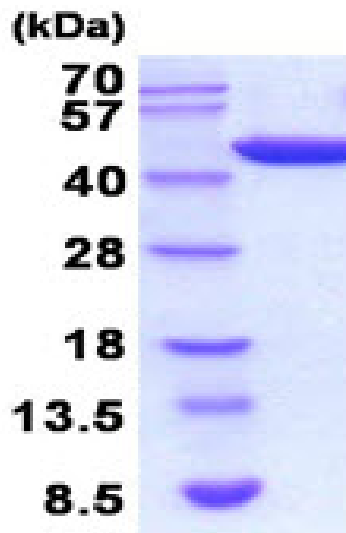
General References

Svaasand EK., et al. (2007) *Muscle Nerve*. 36(5):679-84.

Valentin C., et al. (1998) *Hum Mutat*. 12(4):280-7.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

15% SDS-PAGE (3ug)