

Recombinant human PGAM1 protein

Catalog Number: ATGP3426

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-254aa

UniProt No.

P18669

NCBI Accession No.

NP_002620.1

Alternative Names

Phosphoglycerate mutase 1, Phosphoglycerate mutase isozyme B, PGAM-B, PGAMA

PRODUCT SPECIFICATION

Molecular Weight

30.9 kDa (274aa) 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

> 90% by SDS-PAGE

Biological Activity

Specific activity is >300unit/mg, in which one unit will convert 1.0 umole of 3-phosphoglycerate to 2-phosphoglycerate per minute at pH 7.6 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.

BACKGROUND

Description

PGAM1 belongs to the phosphoglycerate mutase family. This protein is important components of glucose and 2, 3-BPGA (2, 3-bisphosphoglycerate) metabolism and catalyzes the reversible reaction of 3-phosphoglycerate (3-PGA) to 2-phosphoglycerate (2-PGA) in the glycolytic pathway. The PGAM is a dimeric enzyme containing, in

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different tissues, different proportions of a slow-migrating muscle (MM) isozyme, a fast-migrating brain (BB) isozyme, and a hybrid form (MB). Mutations in this protein cause muscle phosphoglycerate mutase efficiency, also known as glycogen storage disease X. Recombinant human PGAM protein, fused to His-tag at N-terminus, was expressed in *E. coli* and purified by using conventional chromatography techniques.

Amino acid Sequence

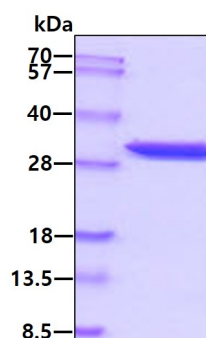
<MGSSHHHHHH SSGLVPRGSH> MAAYKLVLIR HGESAWNLEN RFSGWYDADL SPAGHEEAKR GGQALRDAGY
EFDICFTSVQ KRAIRTLWTV LDAIDQMWLP VVRTWRLNER HYGGTLGLNK AETAAKHGEA QVKIWRRSYD VPPPPMEPDH
PFYSNISKDR RYADLTEDQL PSCESLKDTI ARALPFWNEE IVPQIKEGKR VLIAAHGNSL RGIVKHLEGL SEEAIMELNL
PTGIPIVYEL DKNLKPDKPM QFLGDEETVR KAMEAVAAQG KAKK

General References

Sakoda S., et al. (1988) *J Biol Chem.* 263(32):16899-905.
Junien C., et al. (1982) *Ann Genet.* 25(1):25-7.

DATA

SDS-PAGE



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