
Product Data Sheet

Product Name: PGAM1 Human, Active
 Cat. No.: GP22072
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Phosphoglycerate mutase isozyme B; PGAM-B; PGAMA.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MAAYKLVLIR HGESAWNLEN RFSGWYDADL SPAGHEEAKR GGQALRDAGY EFDICFTSVQ KRAIRTLWTV LDAIDQMWLP VVRTWRLNER HYGGLTGLNK AETAAKHGEA QVKIWRRSYD VPPPPMEPDH PFYSNISKDR RYADLTEDQL PSCESLKDTI ARALPFWNEE IVPQIKEGKR VLIAAHGNSL RGIVKHLEGL SEEAIMELNL PTGIPIVYEL DKNLKPIKPM QFLGDEETVR KAMEAVAAQG KAKK.		
Formulation	The PGAM1 1mg/ml protein solution contains 20mM Tris-HCl pH-8, 1mM DTT, and 10% glycerol.		

Introduction

PGAM1 is part of the phosphoglycerate mutase family. PGAM1 is an essential component 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. PGAM1 is a dimeric enzyme containing, in different tissues, different proportions of a slow-migrating muscle (MM) isozyme, a fast-migrating brain (BB) isozyme, and a hybrid form (MB). PGAM1 mutations lead to muscle phosphoglycerate mutase deficiency, a.k.a. glycogen storage disease X.

Biological Activity

Specific activity is >300 units/mg, in which One unit will convert 1.0 umole of 3-phosphoglycerate to 2-phosphoglycerate per minute at pH 7.6 at 37C.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer

Caution: Product has not been fully validated for medical applications. For research use only.

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periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

PGAM1 Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 274 amino acids (1-254 a.a.) and having a molecular mass of 30.9 kDa. The PGAM1 is fused to a 20 amino acid His Tag at N-Terminus and purified by proprietary chromatographic techniques.

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