

Active Recombinant Human PGAM2 protein, His-tagged (Bioactivity Validated)

Cat. No. PGAM2-15H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human PGAM2 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography.
Species	Human
Source	E.coli
ProteinLength	1-253 aa
Description	PGAM2, also known as phosphoglycerate mutase 2, belongs to the phosphoglycerate mutase family. Phosphoglycerate mutase (PGAM) 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 different tissues, different proportions of a slow-migrating muscle (MM) isozyme, a fast-migrating brain (BB) isozyme, and a hybrid form (MB). This gene encodes muscle-specific PGAM subunit. Mutations in this gene cause muscle phosphoglycerate mutase efficiency, also known as glycogen storage disease X.
Form	Liquid. 20mM Tris-HCl buffer (pH8.0) containing 20% glycerol, 0.1M NaCl, 1mM DTT
Bio-activity	Specific activity is >100units/mg, in which One unit will convert 1.0 umole of 3-phosphoglycerate to 2-phosphoglycerate per minute at pH 7.6 at 37centigrade.
Molecular Mass	30.9 kDa (273aa) confirmed by MALDI-TOF

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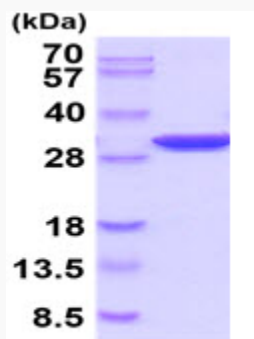
 45-1 Ramsey Road, Shirley, NY 11967, USA

AA Sequence	MGSSHHHHHH SSGLVPRGSH MATHRLVMVR HGESTWNQEN RFCGWFDAEL SEKGTEEAKR GAKAIKDAKM EFDICYTSVL KRAIRTLWAI LDGTDQMWLP VVRTWRLNER HYGGTLGLNK AETAAKHGEE QVKIWRRSFD IPPPPMDEKH PYYNSISKER RYAGLKPGEI PTCESLKDTI ARALPFWNEE IVPQIKAGKR VLIAAHGNSL RGIVKHLEGM SDQAIMELNL PTGIPIVYEL NKELKPTKPM QFLGDEETVR KAMEAVAAQG KAK
Purity	> 95% by SDS - PAGE
Storage	Can be stored at +4centigrade short term (1-2 weeks). For long term storage, aliquot and store at -20centigrade or -70centigrade. Avoid repeated freezing and thawing cycles.
Concentration	1 mg/ml (determined by Bradford assay)
GENE INFORMATION	
Gene Name	PGAM2 phosphoglycerate mutase 2 (muscle) [Homo sapiens]
Official Symbol	PGAM2
Synonyms	PGAM2; phosphoglycerate mutase 2; PGAM M; BPG-dependent PGAM 2; GSD10; PGAMM; PGAM-M
Gene ID	5224
mRNA Refseq	NM_000290
Protein Refseq	NP_000281
MIM	612931

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UniProt ID	P15259
Chromosome Location	7p13-p12
Pathway	Gluconeogenesis, organism-specific biosystem; Gluconeogenesis, oxaloacetate => fructose-6P, organism-specific biosystem; Gluconeogenesis, oxaloacetate => fructose-6P, conserved biosystem; Glucose metabolism, organism-specific biosystem; Glycine, serine and threonine metabolism, organism-specific biosystem;
Function	2,3-bisphosphoglycerate-dependent phosphoglycerate mutase activity; bisphosphoglycerate 2-phosphatase activity; bisphosphoglycerate mutase activity; cofactor binding; hydrolase activity; isomerase activity; phosphoglycerate mutase activity;
 (kDa) 70 57 40 28 18 13.5 8.5 15% SDS-PAGE (3ug)	