

## Recombinant Human Phosphoglycerate Mutase 2 (muscle), His-tagged

**Cat. No.** PGAM2-1932H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant humanPGAM2 protein,fused to His-tag at N-terminus, was expressed in E. coli and purified byusing conventional chromatography.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>ProteinLength</b>    | 1-253 aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b>      | PGAM2, also known asphosphoglyceratemutase 2, belongs to the phosphoglycerate mutase family.Phosphoglycerate mutase (PGAM) catalyzes the reversible reaction of3-phosphoglycerate (3-PGA) to 2-phosphoglycerate (2-PGA) in the glycolyticpathway. 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 encodesmuscle-specific PGAM subunit. Mutations in this gene cause musclephosphoglycerate mutase efficiency, also known as glycogen storage disease X. |
| <b>Form</b>             | Liquid. 20mMTris-HCl buffer (pH8.0) containing 20% glycerol, 0.1M NaCl, 1mM DTT.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Molecular Weight</b> | 30.9 kDa (273aa)confirmed by MALDI-TOF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Purity</b>           | > 95%by SDS-PAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Concentration</b>    | 1 mg/ml (determinedby Bradford assay)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

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

|                                |                                                                                                                                                                                                                                                                                                                      |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Sequences of aminoacids</b> | MGSSHHHHHSSGLVPRGSH MATHRLVMVR HGESTWNQEN RFCGWFDAEL<br>SEKGTEEAKR GAKAIKDAKMEFDICYTVL KRAIRTLWAI LDGTDQMWLP<br>VVRTWRLNER HYGGTLGLNK AETAAKHGEE QVKIWRRSFDIPPPPMDEKH<br>PYYNSISKER RYAGLKPGEI PTCESLKDTI ARALPFWNEE IVPQIKAGKR<br>VLIAAHGNSLRGIVKHLEGM SDQAIMELNL PTGIPIVYEL NKEKPTKPM<br>QFLGDEETVR KAMEAVAAQG KAK |
| <b>Storage</b>                 | Can bestored at +4°C short term (1-2 weeks). For long term storage, aliquot andstore at -20°C or -70°C. Avoidrepeated freezing and thawing cycles.                                                                                                                                                                   |
| <b>Pathways</b>                | Gluconeogenesis; Glucose metabolism;Glycolysis; Glycolysis (Embden-Meyerhof pathway); Glycolysis / Gluconeogenesis; Glycolysisand Gluconeogenesis; Metabolic pathways; MetRabolism of carbohydrates                                                                                                                  |
| <b>GENE INFORMATION</b>        |                                                                                                                                                                                                                                                                                                                      |
| <b>Gene Name</b>               | PGAM2 phosphoglycerate mutase 2(muscle) [ Homo sapiens ]                                                                                                                                                                                                                                                             |
| <b>Official Symbol</b>         | PGAM2                                                                                                                                                                                                                                                                                                                |
| <b>Synonyms</b>                | PGAM2;phosphoglycerate mutase 2 (muscle); GSD10; PGAMM; PGAM-M; phosphoglyceratemutase 2; BPG-dependent PGAM 2; phosphoglycerate mutase isozyme M;muscle-specific phosphoglycerate mutase                                                                                                                            |
| <b>Gene ID</b>                 | 5224                                                                                                                                                                                                                                                                                                                 |
| <b>mRNA Refseq</b>             | NM_000290                                                                                                                                                                                                                                                                                                            |
| <b>Protein Refseq</b>          | NP_000281                                                                                                                                                                                                                                                                                                            |
| <b>MIM</b>                     | 612931                                                                                                                                                                                                                                                                                                               |

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

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

|                     |                                                                                                                                                                                                                                                           |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UniProt ID          | P15259                                                                                                                                                                                                                                                    |
| Chromosome Location | 7p13-p12                                                                                                                                                                                                                                                  |
| Function            | 2,3-bisphosphoglycerate-dependentphosphoglycerate mutase activity ;<br>bisphosphoglycerate 2-phosphataseactivity; bisphosphoglycerate mutase activity;<br>cofactor binding ; hydrolaseactivity ; isomerase activity ; phosphoglycerate mutase<br>activity |

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

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