

Phosphoglycerate Mutase 1

Cat. No. CBCRY11 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Source	E.coli
Background	The B-type cofactor-dependent phosphoglycerate mutase (dPGM-B) catalyzes the interconversion of 2-phosphoglycerate and 3-phosphoglycerate in glycolysis and gluconeogenesis pathways using 2,3-bisphosphoglycerate as the cofactor. The crystal structures of human dPGM-B bound with citrate were determined in two crystal forms. These structures reveal a dimerization mode conserved in both of dPGM and BPGM (bisphosphoglycerate mutase), based on which a dPGM/BPGM heterodimer structure is proposed. Structural comparison supports that the conformational changes of residues 13-21 and 98-117 determine PGM/BPGM activity differences.
Protein Classification	isomerase hydase
Structure Weight	361525.84
Polymer	1
Molecule	Phosphoglycerate mutase 1
Chain Length	262 amino acids
PDB ID	1YJX

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MMDB ID	33356
Method	X-Ray Diffraction
Resolution	2.8?
Ligand Chemical Component	citric acid; chloride ion
Reference	Wang, Y., Wei, Z., Liu, L., Cheng, Z., Lin, Y., Ji, F., Gong, W.(2005) Crystal structure of human B-type phosphoglycerate mutase bound with citrate. Biochem.Biophys.Res.Comm. 331: 1207-1215

GENE INFORMATION

Gene Name	PGAM1
Synonyms	PGAMA; PGAM-B; PGAM1; RP11-452K12.8; OTTHUMP00000020190; OTTHUMP00000059414; phosphoglycerate mutase A, nonmuscle form; EC 5.4.2.1,EC 5.4.2.4,EC 3.1.3.13; BPG-dependent PGAM 1; Phosphoglycerate mutase isozyme B; phosphoglycerate mutase A, nonmuscle form
UniProt ID	P18669
Gene ID	5223
Chromosome Location	10q25.3
Function	bisphosphoglycerate 2-phosphatase activity; bisphosphoglycerate mutase activity; hydrolase activity; isomerase activity; phosphoglycerate mutase activity; protein kinase binding

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