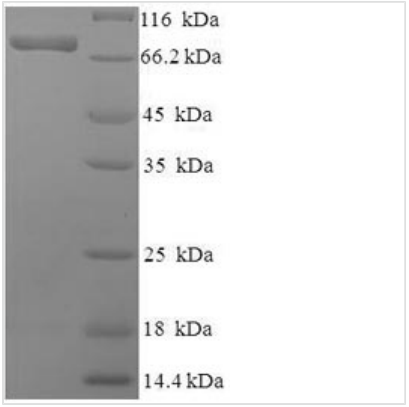
Recombinant Human Phosphoacetylglucosamine mutase (PGM3)

Product Code	CSB-EP017869HU
Relevance	Catalyzes the conversion of GlcNAc-6-P into GlcNAc-1-P during the synthesis of uridine diphosphate/UDP-GlcNAc, a sugar nucleotide critical to multiple glycosylation pathways including protein N- and O-glycosylation.
Abbreviation	Recombinant Human PGM3 protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	O95394
Alias	AcetylglucosaminephosphomutaseCurated
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MDLGAITKYSALHAKPNGLILQYGTAGFRTKAEHLDHVMFRMGLLAVLRSKQT KSTIGVMVTASHNPEEDNGVKLVDPLGEMLAPSWEEHATCLANAEEQDMQRV LIDISEKEAVNLQQDAFVVIGRDTRPSSEKLSQSVIDGVTVLGGQFHDYGLLTT PQLHYMVYCRNTGGRYGKATIEGYYQKLSKAFVELTKQASCSGDEYRSLKVD CANGIGALKLREMEHYFSQGLSVQLFNDGSKGKLNHLCGADFVKSHQKPPQG MEIKSNERCCSFDGDADRIVYYYHDADGHFHLIDGDKIATLISSFLKELLVEIGE SLNIGVVQTAYANGSSTRYLEEVMKVPVYCTKTGVKHLHHKAQEFDIGVYFEA NGHGTALFSTAVEMKIKQSAEQLEDKKRKAAKMLENIIDLFNQAAGDAISDMLV IEAILALKGLTVQQWDALYTDLPNRQLKVQVADRRVISTTDAERQAVTPPGLQE AINDLVKKYKLSRAFVRPSGTEDVVRVYAEADSQESADHLAHEVSLAVFQLAG GIGERPQPGF
Research Area	Metabolism
Source	E.coli
Target Names	PGM3
Expression Region	1-542aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	75.9kDa
Protein Length	Full Length
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

This Human PGM3 recombinant protein was produced in E.coli, where the gene sequence encoding Human PGM3 (1-542aa) was expressed with the N-terminal 6xHis-SUMO tag. The purity of this PGM3 protein was greater than 90% by SDS-PAGE.
The main function of PGM3 is to catalyze the isomerization reaction of N-acetylglucosamine-6-phosphate (GlcNAc-6-P) to N-acetylglucosamine-1-phosphate (GlcNAc-1-P). This is a chemical transformation of a substrate that is crucial for various biosynthetic and metabolic pathways. PGM3 plays a critical role in the biosynthesis of glycoproteins. Glycoproteins are a class of proteins that have specific sugar molecules attached to them, and these sugar molecules are essential for the stability and function of the proteins. The activity of PGM3 ensures the proper biosynthesis of glycoproteins.
PGM3 is also associated with the function of the immune system. Certain mutations or defects may result in impaired PGM3 function, affecting the normal functioning of immune cells. This could lead to immunodeficiency, making individuals more susceptible to infections. PGM3 deficiency or mutations may be associated with a rare genetic disorder known as PGM3 deficiency disease (PGM3-CDG). This disease can lead to various symptoms, including immune system issues, neurological problems, and growth retardation.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

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