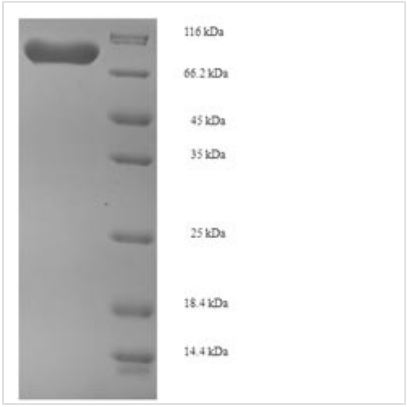
Recombinant Human Phosphoglucomutase-1 (PGM1)

Product Code	CSB-EP017866HU
Relevance	This enzyme participates in both the breakdown and synthesis of glucose.
Abbreviation	Recombinant Human PGM1 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.	P36871
Alias	Glucose phosphomutase 1
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MVKIVTVKTQAYQDQKPGTSGLRKRVKVFQSSANYAENFIQSIISTVEPAQRQE ATLVVGGDGRFYMKEAIQLIARIAAANGIGRLVIGQNGILSTPAVSCIIRKIKAIGG IILTASHNPGGPNGDFGIKFNISNGGPAPEAITDKIFQISKTIEEYAVCPDLKVDL GVLGKQQFDLENKFKPFTVEIVDSVEAYATMLRSIFDFSALKELLSGPNRLKIRI DAMHGVVGPYVKKILCEELGAPANSAVNCVPLEDFGGHHPDPNLTYAADLVE TMKSGEHDFGAAFDGDGDRNMILGKHGFFVNPSDSVAVIAANIFSIPYFQQTG VRGFARSMPTSGALDRVASATKIALYETPTGWKFFGNLMDASKLSLCGEESF GTGSDHIREKDGLWAVLAWLSILATRKQSVEDILKDHWQKYGRNFFTRYDYEE VEAEGANKMMKDLEALMFDRSFVGKQFSANDKVYTVEKADNFEYSDPVDGSI SRNQGLRLIFTDGSRIVFRLSGTGSAGATIRLYIDSYEKDVAKINQDPQVMLAPL ISIALKVSQLQERTGRTAPTVIT
Research Area	Metabolism
Source	E.coli
Target Names	PGM1
Expression Region	1-562aa
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	77.4kDa
Protein Length	Full Length
Image	



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

Description

This Human PGM1 recombinant protein was produced in E. coli, where the gene sequence encoding Human PGM1 (1-562aa) was expressed with the N-terminal 6xHis-SUMO tag. The purity of this PGM1 protein was greater than 90% by SDS-PAGE.
PGM1 is an enzyme with the primary function of catalyzing the interconversion of glucose-6-phosphate (G6P) and glucose-1-phosphate (G1P) in the sugar metabolism pathway. Specifically, it converts G6P to G1P or G1P to G6P. This enzymatic activity is crucial for cellular energy metabolism and the synthesis and breakdown of sugars. PGM1 is involved in multiple sugar metabolism pathways, including sugar isomerization, sugar alcohol phosphorylation, and glycogen synthesis and breakdown. These pathways are essential for maintaining cellular energy balance and survival.
The PGM1 gene is located in the human genome, and mutations or genetic variations can lead to a rare inherited metabolic disorder known as PGM1 deficiency disease (PGM1-CDG). This is a glycoprotein glycosylation disorder, and patients typically exhibit multisystem symptoms, including growth retardation, neurological issues, and immune system problems.

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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