

# Recombinant human PMM1 protein

Catalog Number: ATGP0782

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

1-262aa

### UniProt No.

Q92871

### NCBI Accession No.

NP\_002667

### Alternative Names

phosphomannomutase 1, Sec53, PMMH22

## PRODUCT SPECIFICATION

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### Molecular Weight

31.9 kDa (282aa) confirmed by MALDI-TOF

### Concentration

0.5mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol, 2mM DTT, 100mM NaCl, 0.1mM PMSF

### Purity

> 90% by SDS-PAGE

### Tag

His-Tag

### Application

SDS-PAGE

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### Description

PMM1 (Phosphomannomutase 1) is an enzyme that involved in the synthesis of the GDP-mannose and dolichol-phosphate-mannose required for a number of critical mannosyl transfer reactions. This enzyme catalyzes the conversion between D-mannose 6-phosphate and D-mannose 1-phosphate which is a substrate for GDP-mannose synthesis. GDP-mannose is used for synthesis of dolichol-phosphate-mannose, which is essential for N-linked glycosylation and thus the secretion of several glycoproteins as well as for the synthesis of glycosyl-phosphatidyl-inositol (GPI) anchored proteins. In addition, it may be responsible for the degradation of glucose-1,

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6-bisphosphate in ischemic brain. Recombinant human PMM1 protein, fused to His-tag at N-terminus, was expressed in *E. coli* and purified by using conventional chromatography techniques.

### Amino acid Sequence

MGSSHHHHHH SGLVPRGSH MAVTAQAARR KERVLCFLDV DGLTPARQK IDPEVA AFLQ KLRSRVQIGV VGGSDYCKIA  
EQLGDGDEVI EKFDYVFAEN GTVQYKHGRL LSKQTIQNH L GEELLQDLIN FCLSYMALLR LPKKRGTFIE FRNGMLNISP  
IGRSTLEER IEFSELDKKE KIREKFVEAL KTEFAGKGLR FSRGGMISFD VFPEGWVKRY CLDSLQDSF DTIHFFGNET  
SPGGNDFEIF ADPRTVGHSV VSPQDTVQRC REIFFPETAH EA

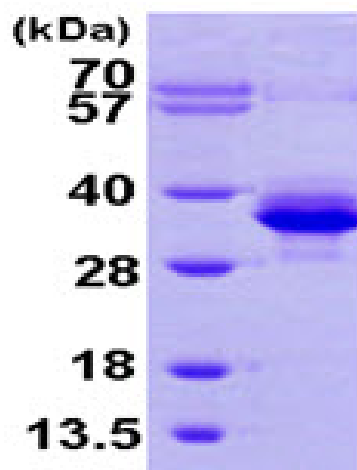
### General References

Veiga-da-Cunha M., et al. (2008) *J Biol Chem.* 283(49):33988-93.

Silvaggi N.R., et al. (2006) *J. Biol. Chem.* 281:14918-14926

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

15% SDS-PAGE (3ug)