Recombinant GMPPB protein (His tag)

Catalog Number	541633
Synonyms	GDP-mannose pyrophosphorylase B; GTP-mannose-1-phosphate guanylyltransferase beta
Species	Human
Expression System	E. coli
Accession	Q9Y5P6
Molecular Weight	Predictes a molecular mass of 41.49 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 41 kDa band.

Product Information

Sequence Region	1-360
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 1-360 aa (Q9Y5P6) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant fragment of human Mannose-1-phosphate guanylyltransferase catalytic subunit beta (GMPPB), encompassing amino acids 1-360. This stable, soluble fragment is ideal for structural studies and biochemical assays investigating GDP-mannose biosynthesis. The full-length GMPPB protein, encoded by the GMPPB gene, functions as the catalytic subunit of the GMPPA-GMPPB complex. It catalyzes the synthesis of GDP-mannose, a critical precursor for glycan moieties in glycoproteins and glycolipids. Additionally, it can perform the reverse reaction in vitro and, together with GMPPA, helps regulate cellular GDP-alpha-D-mannose levels. The protein is localized in the cytoplasm, where it contributes to essential metabolic pathways involved in glycosylation processes.