Recombinant PGPS1 protein (His tag)

Catalog Number	540407
Synonyms	Phosphatidylglycerophosphate synthase 1; PGP synthase 1
Species	Human
Expression System	E. coli
Accession	Q32NB8
Molecular Weight	Predictes a molecular mass of 56.19 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 56 kDa band.

Product Information

Sequence Region	78-556
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 78-556 aa (Q32NB8) 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 CDP-diacylglycerol--glycerol-3-phosphate 3-phosphatidyltransferase (PGS1), spanning residues 78-556, encompassing the complete PLD phosphodiesterase 1 and PLD phosphodiesterase 2 domains. This high-purity protein is an essential tool for investigating mitochondrial phospholipid biosynthesis and domain-specific functional studies. The full-length CDP-diacylglycerol--glycerol-3-phosphate 3-phosphatidyltransferase (EC 2.7.8.5), also known as Phosphatidylglycerophosphate synthase 1, is a mitochondrial enzyme critical for the biosynthesis of anionic phospholipids phosphatidylglycerol and cardiolipin. These phospholipids are fundamental components of mitochondrial membranes, playing vital roles in mitochondrial architecture, energy metabolism, and apoptosis regulation. The enzyme's exclusive mitochondrial localization underscores its importance in maintaining organellar membrane integrity and cellular energy homeostasis.