Recombinant PLSB protein (His tag)

Catalog Number	534835
Synonyms	GPAT
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	Q22949
Gene ID	178928
Molecular Weight	Predictes a molecular mass of 42.81 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 43 kDa band.

Product Information

Sequence Region	1-354
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 1-354 aa (Q22949) 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 the Probable glycerol-3-phosphate acyltransferase, mitochondrial (GPAT) from Caenorhabditis elegans, encompassing residues 1-354. This fragment was computationally designed for stability and solubility, making it ideal for structural studies, enzymatic assays, and functional investigations in lipid metabolism research. The full-length GPAT protein (encoded by the acl-6 gene) is a mitochondrial membrane-associated enzyme (EC 2.3.1.15) that catalyzes the initial step in glycerolipid biosynthesis. As a single-pass membrane protein localized to the mitochondrion, it plays a critical role in acylating glycerol-3-phosphate to form lysophosphatidic acid—a key precursor for phospholipid and triglyceride synthesis. This enzyme is essential for maintaining lipid homeostasis and energy storage processes, with implications in metabolic studies and related biological pathways.