Recombinant PLCC protein (His tag)

Catalog Number	541348
Synonyms	1-acylglycerol-3-phosphate O-acyltransferase 3; 1-AGP acyltransferase 3; 1-AGPAT 3; Lysophosphatidic acid acyltransferase gamma; LPAAT-gamma
Species	Human
Expression System	E. coli
Accession	Q9NRZ7
Molecular Weight	Predictes a molecular mass of 21.72 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 22 kDa band.

Product Information

Sequence Region	146-316
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 146-316 aa (Q9NRZ7) 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 1-acyl-sn-glycerol-3-phosphate acyltransferase gamma (AGPAT3), encompassing residues 146-316. This fragment is optimized for structural and biochemical studies, offering a stable and soluble unit to investigate the enzyme's role in phospholipid biosynthesis. The full-length AGPAT3 enzyme, also known as lysophosphatidic acid acyltransferase gamma (LPAAT-gamma), catalyzes the conversion of lysophosphatidic acid (LPA) to phosphatidic acid (PA) by incorporating an acyl group at the sn-2 position of the glycerol backbone. It acts on LPA with saturated or unsaturated fatty acids (C16:0-C20:4) and prefers arachidonoyl-CoA as an acyl donor. Additionally, AGPAT3 exhibits activity on lysophosphatidylcholine, lysophosphatidylinositol, and lysophosphatidylserine, and has modest lysophosphatidylinositol acyltransferase (LPIAT) function, converting lysophosphatidylinositol to phosphatidylinositol. This enzyme is localized to the endoplasmic reticulum membrane and nuclear envelope, where it plays a critical role in lipid metabolism and cellular signaling pathways.