Recombinant PLPL8 protein (His tag)

Catalog Number	546014
Synonyms	Intracellular membrane-associated calcium-independent phospholipase A2 gamma; iPLA2-gamma; PNPLA-gamma; Patatin-like phospholipase domain-containing protein 8; iPLA2-2
Species	Human
Expression System	E. coli
Accession	Q9NP80
Molecular Weight	Predictes a molecular mass of 34.23 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 34 kDa band.

Product Information

Sequence Region	496-782
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 496-782 aa (Q9NP80) 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 Human Calcium-independent phospholipase A2-gamma (PNPLA8) fragment (residues 496-782) is a high-purity protein designed for structural and biochemical studies. This 287-amino acid fragment offers a stable and soluble unit ideal for investigating the enzyme's calcium-independent phospholipase activity and membrane-associated functions. Calcium-independent phospholipase A2-gamma (iPLA2-gamma) is a membrane-bound phospholipase that catalyzes the hydrolysis of fatty acids from glycerophospholipids without calcium dependence. It exhibits broad substrate specificity, hydrolyzing phosphatidylethanolamine, phosphatidylcholine, and phosphatidylinositol, with particular importance in mobilizing arachidonic acid for lipid second messenger generation. The enzyme localizes to endoplasmic reticulum, mitochondrial, and peroxisomal membranes as a single-pass membrane protein, where it regulates membrane physical properties and mitochondrial bioenergetics through cardiolipin remodeling. This fragment represents a computationally selected region optimized for experimental applications while maintaining relevance to the full-length protein's functional characteristics.