Recombinant PLB1 protein (His tag)

Catalog Number	540522
Synonyms	Phospholipase B; hPLB; Lysophospholipase; Phospholipase A2; Phospholipase B/lipase; PLB/LIP; Triacylglycerol lipase
Species	Human
Expression System	E. coli
Accession	Q6P1J6
Molecular Weight	Predictes a molecular mass of 16.87 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 17 kDa band.

Product Information

Sequence Region	1288-1417
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 1288-1417 aa (Q6P1J6) 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 Phospholipase B1 Fragment (1288-1417) is a stable and soluble protein fragment designed for structural and biochemical studies. This fragment, derived from the membrane-associated phospholipase B1 (hPLB), retains relevance to the enzyme's multifunctional lipid-metabolizing activities, offering a practical tool for investigating phospholipase, lysophospholipase, and lipase mechanisms in a controlled experimental setting. Phospholipase B1 (PLB1) is a calcium-independent, membrane-associated enzyme from Homo sapiens that exhibits broad substrate specificity, catalyzing the complete hydrolysis of phospholipids through phospholipase B activity by cleaving both sn-1 and sn-2 fatty acyl chains. It also functions as a lysophospholipase, phospholipase A2, and triacylglycerol lipase, with a preference for sn-2 ester bonds in diacylglycerols and no positional selectivity in triacylglycerols. Additionally, it may hydrolyze long-chain retinyl esters, such as retinyl palmitate, suggesting a role in digesting dietary lipids and retinoids to facilitate absorption at the intestinal brush border. The full-length protein is localized to the apical cell membrane as a single-pass type I membrane protein, particularly in intestinal brush border membranes, underscoring its importance in lipid metabolism and nutrient uptake.