Recombinant PAFA protein (His tag)

Catalog Number	542607
Synonyms	PAF acetylhydrolase; 1-alkyl-2-acetylglycerophosphocholine esterase; 2-acetyl-1-alkylglycerophosphocholine esterase; Group-VIIA phospholipase A2; gVIIA-PLA2; LDL-associated phospholipase A2; LDL-PLA(2); PAF 2-acylhydrolase
Species	Human
Expression System	E. coli
Accession	Q13093
Molecular Weight	Predictes a molecular mass of 45.83 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 46 kDa band.

Product Information

Sequence Region	54-441
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 54-441 aa (Q13093) 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 Platelet-activating factor acetylhydrolase (PAF acetylhydrolase) fragment (residues 54-441) is a high-purity, stable protein designed for structural and biochemical research. This 388-amino acid fragment maintains key functional properties of the native enzyme, enabling studies of its phospholipase A2 activity and role in inflammatory regulation. Platelet-activating factor acetylhydrolase (encoded by PLA2G7) is a calcium-independent phospholipase A2 that plays a crucial role in phospholipid catabolism during inflammatory and oxidative stress responses. The enzyme specifically hydrolyzes phospholipids with short-chain fatty acyl groups at the sn-2 position, including the potent pro-inflammatory mediator platelet-activating factor (PAF), thereby inactivating its signaling through PTAFR on innate immune cells. Additionally, it targets oxidatively modified phospholipids with long fatty acyl chains, preventing accumulation of pro-inflammatory oxidized lipids in LDL particles and protecting against oxidative damage in the vascular wall when associated with HDL particles. The protein is secreted into the extracellular space and naturally associates with both LDL and HDL lipoprotein particles in plasma, with preferential binding to pro-inflammatory electronegative LDL particles. This recombinant fragment represents a stable, soluble unit ideal for investigating the enzyme's catalytic mechanism and substrate specificity.