Recombinant PAFA2 protein (His tag)

Catalog Number	543447
Synonyms	PAF:lysophospholipid transacetylase; PAF:sphingosine transacetylase; Platelet-activating factor acetyltransferase PAFAH2; Serine-dependent phospholipase A2; SD-PLA2; hSD-PLA2
Species	Human
Expression System	E. coli
Accession	Q99487
Molecular Weight	Predictes a molecular mass of 45.56 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 46 kDa band.

Product Information

Sequence Region	2-392
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 2-392 aa (Q99487) 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 2 (PAFAH2) fragment (residues 2-392) is a high-purity protein designed for structural and biochemical studies. This fragment encompasses the full functional domain of the cytoplasmic enzyme, retaining key catalytic activities including PAF hydrolysis and transacetylation capabilities, making it an ideal tool for investigating lipid signaling pathways. Platelet-activating factor acetylhydrolase 2 (PAFAH2) is a multifunctional cytoplasmic enzyme encoded by the PAFAH2 gene in humans. It primarily catalyzes the hydrolysis of the acetyl group at the sn-2 position of platelet-activating factor (PAF) and its analogs, leading to their biological inactivation. Additionally, PAFAH2 demonstrates transacetylase activity, transferring acetyl groups from PAF to lysoplasmalogen and sphingosine to produce plasmalogen analogs of PAF and N-acetylsphingosine (C2-ceramide), respectively. The enzyme shows marked selectivity for phospholipids with short acyl chains at the sn-2 position. Subcellular localization studies indicate PAFAH2 is found in both the cytoplasm and membrane compartments, with dynamic translocation from cytoplasm to intracellular membranes occurring under oxidative stress conditions. These diverse functions position PAFAH2 as a crucial regulator in lipid metabolism and cellular signaling pathways.