Recombinant ABD12 protein (His tag)

Catalog Number	545420
Synonyms	2-arachidonoylglycerol hydrolase ABHD12; Abhydrolase domain-containing protein 12; hABHD12; Monoacylglycerol lipase ABHD12; Oxidized phosphatidylserine lipase ABHD12
Species	Human
Expression System	E. coli
Accession	Q8N2K0
Molecular Weight	Predictes a molecular mass of 36.59 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 37 kDa band.

Product Information

Sequence Region	96-398
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 96-398 aa (Q8N2K0) 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 ABHD12 (96-398) is a high-purity, stable fragment of human Lysophosphatidylserine lipase ABHD12, optimized for structural and biochemical studies. This product enables researchers to investigate key enzymatic functions, including lysophosphatidylserine hydrolysis and endocannabinoid signaling regulation, in a soluble and experimentally tractable format. ABHD12 is a membrane-associated lipase critical for lipid signaling in immunological and neurological processes. It functions as a major lysophosphatidylserine (LPS) lipase in the brain, hydrolyzing LPS and oxidized phosphatidylserine—a proapoptotic signal produced during inflammatory stress. Additionally, ABHD12 exhibits monoacylglycerol lipase activity, hydrolyzing 2-arachidonoylglycerol (2-AG) to modulate endocannabinoid pathways. With a strong preference for very-long-chain lipid substrates, ABHD12 is localized to the endoplasmic reticulum membrane as a single-pass membrane protein, playing a vital role in central nervous system homeostasis and inflammatory responses.