Recombinant PG12A protein (His tag)

Catalog Number	541199
Synonyms	GXII sPLA2; sPLA2-XII; Phosphatidylcholine 2-acylhydrolase 12A
Species	Human
Expression System	E. coli
Accession	Q9BZM1
Molecular Weight	Predictes a molecular mass of 20.37 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 20 kDa band.

Product Information

Sequence Region	23-189
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 23-189 aa (Q9BZM1) 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 Group XIIA secretory phospholipase A2 (GXII sPLA2), also known as sPLA2-XII, is a high-purity protein fragment (residues 23-189) designed for structural and biochemical studies. This fragment retains key functional characteristics, offering researchers a stable and soluble tool to investigate calcium-dependent phospholipid hydrolysis mechanisms. Group XIIA secretory phospholipase A2 (sPLA2-XII) is a calcium-dependent enzyme (EC 3.1.1.4) that catalyzes the hydrolysis of 2-acyl groups in 3-sn-phosphoglycerides. Notably, it shows no detectable activity toward sn-2-arachidonoyl- or linoleoyl-phosphatidylcholine or -phosphatidylethanolamine, indicating substrate specificity. The protein is localized in both secretory pathways and the cytoplasm, suggesting roles in extracellular and intracellular phospholipid metabolism. This recombinant fragment (23-189) encompasses the functional domain, enabling focused studies on its enzymatic behavior and cellular interactions without interference from full-length regulatory regions.