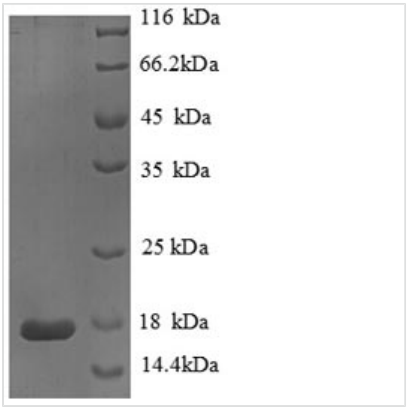
Recombinant Human Phospholipase A2, membrane associated (PLA2G2A)

Product Code	CSB-EP018091HU
Relevance	Thought to participate in the regulation of the phospholipid metabolism in biombranes including eicosanoid biosynthesis. Catalyzes the calcium-dependent hydrolysis of the 2-acyl groups in 3-sn-phosphoglycerides.
Abbreviation	Recombinant Human PLA2G2A protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P14555
Alias	GIIC sPLA2Group IIA phospholipase A2Non-pancreatic secretory phospholipase A2 ;NPS-PLA2;Phosphatidylcholine 2-acylhydrolase 2A
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	NLVNFHRMIKLTTGKEAALSYGFYGCHCGVGGRGSPKDATDRCCVTHDCCYK RLEKRGCGTKFLSYKFSNSGSRITCAKQDSCRSQLCECDKAAATCFARNKTTY NKKYQYYSNKHCRGSTPRC
Research Area	Metabolism
Source	E.coli
Target Names	PLA2G2A
Expression Region	21-144aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	17.9kDa
Protein Length	Full Length of Mature Protein
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

CUSABIO transfected the expression vector which inserted the recombinant DNA into the E.coli, cultured the cells, and then induced the transcription and translation of the cloned vector. The N-terminal 6xHis tag sequence was appended to the gene coding for the E.coli of the human PLA2G2A protein to form the recombinant DNA. The recombinant human PLA2G2A was expressed as N-terminal 6xHis-tagged fusion. The purity of the protein is greater than 90% assayed by SDS-PAGE. It has an apparent molecular weight of approximately 17 kDa.

Pla2g2a has been identified as a susceptibility gene for cancer of the small and large intestine. Interestingly, unlike most previously identified tumor susceptibility genes, Pla2g2a does not behave like a classical oncogene or tumor suppressor gene. PLA2G2A was specifically expressed in lines with constitutive Wnt activity, implicating B-catenin–dependent Wnt signaling as a major upstream regulator of PLA2G2A expression. In GC, patients with tumors expressing high levels of PLA2G2A, a secreted phospholipase, have been shown to exhibit significantly improved survival compared with patients with low PLA2G2A–expressing tumors. Although PLA2G2A has been proposed as a potential tumor suppressor, evidence supporting this model is conflicting. Current studies support the notion that in addition to being a prognostic biomarker, PLA2G2A plays an intimate functional role in inhibiting GC progression. One implication of our findings is that because PLA2G2A is often underexpressed in late-stage and metastatic tumors, it is plausible that the reintroduction of PLA2G2A into aggressive tumors, by either gene therapy, administration of PLA2G2A protein, or intriguingly via epigenetic reactivation, might constitute a novel therapy for late-stage GC.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

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