

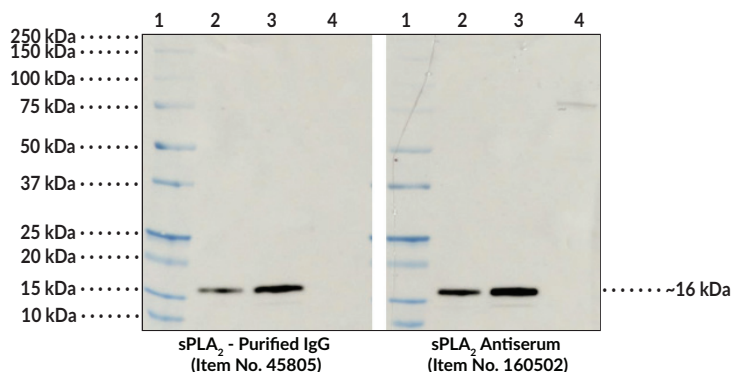
PRODUCT INFORMATION

sPLA₂ (human Type IIA) Polyclonal Antibody - Purified IgG Item No. 45805

Overview and Properties

Contents:	This vial contains 500 µg of protein A-purified polyclonal antibody.
Synonyms:	GIIC sPLA ₂ , Group IIA Phospholipase A ₂ , Non-pancreatic Secretory Phospholipase A ₂ , Phosphatidylcholine 2-acylhydrolase 2A, PLA2G2A, sPLA ₂ -IIA, Secretory Phospholipase A ₂ (Group IIA)
Immunogen:	Recombinant human sPLA ₂ (Type IIA)
Cross Reactivity:	(+) sPLA ₂ (Type IIA); (-) Other sPLA ₂ enzymes
Species Reactivity:	(+) Human; other species not tested
Uniprot No.:	P14555
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
Host:	Rabbit
Application:	Western blot (WB); the recommended starting dilution is 1:200. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Lane 1: MW Markers
 Lane 2: sPLA₂ (Type IIA) (Item No. 10206) (100 ng)
 Lane 3: sPLA₂ (Type IIA) (Item No. 10206) (200 ng)
 Lane 4: sPLA₂ (Type V) (Item No. 10009563) (200 ng)

SDS-PAGE Analysis of sPLA₂ (Type IIA) - Purified IgG. Protein samples were reduced and run on SDS-PAGE followed by transfer to nitrocellulose and blocking with non-fat dry milk. Blots were probed with either sPLA₂ (human Type IIA) Polyclonal Antiserum (Item No. 160502) at a dilution of 1:1,000 or sPLA₂ (human Type IIA) Polyclonal Antibody - Purified IgG (Item No. 45805) at a dilution of 1:200 and a Goat Anti-Rabbit IgG HRP (Item No. 10004301) secondary antibody.

WARNING
 THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
 This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
 Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Secretory phospholipase A₂ (sPLA₂) (Type IIA) is a calcium-dependent PLA₂ superfamily member that is encoded by PLA2G2A in humans.¹ It is composed of a highly-conserved calcium-binding loop, a catalytic domain, sPLA₂ Type I- and II-specific disulfides that provide stability, and a C-terminal extension but lacks the N-terminal signal peptide found in sPLA₂ (Type IB) and sPLA₂ (Type X). sPLA₂ (Type IIA) is expressed in platelets, synovial fluid, vascular smooth muscle cells, adipose tissue, the liver, and the gut.^{2,3} sPLA₂ (Type IIA) functions in a cell- and tissue type-specific manner, preferentially hydrolyzing bacterial membrane phosphatidylglycerol (PG) and phosphatidylethanolamine (PE) as a mechanism of host defense. sPLA₂ (Type IIA) is upregulated at sites of acute and chronic inflammation, where it generates lysophosphatidic acid and arachidonic acid, which is further metabolized to inflammatory lipid mediators and a variety of eicosanoid autocrine and paracrine signaling molecules.⁴ Plasma levels of sPLA₂ (Type IIA) are associated with the presence of sepsis and are increased in patients with rheumatoid arthritis, acute coronary syndrome, asthma, or inflammatory bowel disease (IBD). Cayman's sPLA₂ (human Type IIA) Polyclonal Antibody - Purified IgG can be used for Western blot.

References

1. Murakami, M., Taketomi, Y., Sato, H., *et al.* Secreted phospholipase A₂ revisited. *J. Biochem.* **150**(3), 233-255 (2011).
2. Kuefner, M.S., Stephenson, E., Savikj, M., *et al.* Group IIA secreted phospholipase A2 (PLA2G2A) augments adipose tissue thermogenesis. *FASEB J.* **35**(10), e21881 (2021).
3. Cupillard, L., Koumanov, K., Mattéi, M.G., *et al.* Cloning, chromosomal mapping, and expression of a novel human secretory phospholipase A₂. *J. Biol. Chem.* **272**(25), 15745-15752 (1997).
4. Scott, K.F., Mann, T.J., Fatima, S., *et al.* Human group IIA phospholipase A₂—three decades on from its discovery. *Molecules* **26**(23), 7267 (2021).

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