

PRODUCT INFORMATION

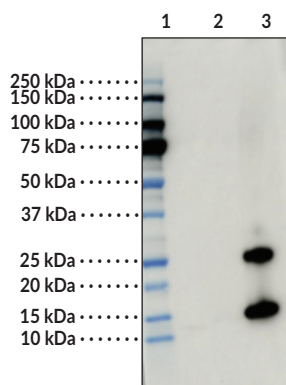


sPLA₂ (human Type X) Polyclonal Antibody Item No. 45419

Overview and Properties

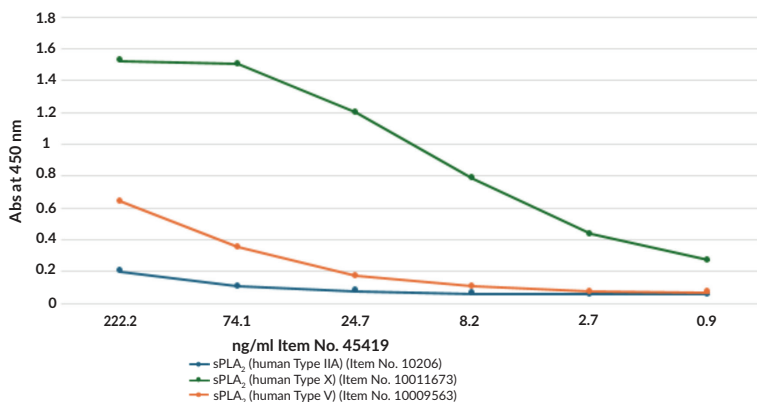
Contents:	This vial contains 500 µl of protein affinity-purified polyclonal antibody.
Synonyms:	Group 10 Secretory Phospholipase A ₂ , GXPLA ₂ , Phosphatidylcholine 2-Acylhydrolase 10, Secretory Phospholipase A ₂ (human Group X), sPLA ₂ -X
Immunogen:	sPLA ₂ (human, recombinant Type X)
Cross Reactivity:	(+++) sPLA ₂ (human Type X); (+) sPLA ₂ (human Type IIA), sPLA ₂ (human Type V); (-) Other sPLA ₂ proteins
Species Reactivity:	(+) Human; other species not tested
Uniprot No.:	O15496
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	PBS, pH 7.2, containing 50% glycerol and 0.02% sodium azide
Host:	Rabbit
Applications:	ELISA and Western Blot; the recommended starting dilution is 1:200. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Lane 1: sPLA₂ (human Type IIA)
Lane 2: sPLA₂ (human Type V)
Lane 3: sPLA₂ (human Type X)

Western Blot. Protein samples were reduced and loaded onto a 4-20% SDS-PAGE gel, followed by transfer to nitrocellulose and blocking with non-fat dry milk. Blot was probed with sPLA₂ (human Type X) Polyclonal Antibody followed by a Goat Anti-Rabbit IgG HRP secondary antibody (Item No. 10004301).



ELISA of sPLA₂ (human Type X) Polyclonal Antibody. Strips were coated with proteins and blocked with 1% BSA followed by probing with sPLA₂ (human Type X) Polyclonal Antibody followed by a Goat Anti-Rabbit IgG HRP secondary antibody (Item No. 10004301).

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
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PRODUCT INFORMATION



Description

Secretory phospholipase A₂ (sPLA₂) (Type X) is a calcium-dependent PLA₂ superfamily member that is encoded by PLA2G10 in humans.¹ It is composed of an N-terminal signal peptide, a highly conserved calcium-binding loop, a catalytic domain, sPLA₂ Type I- and II-specific disulfides that provide stability, and a C-terminal extension. sPLA₂ (Type X) is expressed in spleen, thymus, peripheral blood leukocytes, pancreas, lung, and colon, as well as neutrophils and keratinocytes.²⁻⁴ Upon activation, sPLA₂ (Type X) is released into the extracellular space where it acts in a paracrine or autocrine manner and preferentially catalyzes the hydrolysis of phosphatidylethanolamine (PE) and phosphatidylcholine (PC) over phosphatidylserine (PS) at the *sn*-2 position, liberating the free fatty acid and lysophospholipid, which serve as substrates for the synthesis of bioactive lipid metabolites.^{1,2} sPLA₂ (Type X) increases arachidonic acid (Item Nos. 90010 | 90010.1 | 10006607) release from HEK293 cells and prostaglandin E₂ (Item No. 14010) levels in HEK293 cells expressing human COX-2 but not COX-1.⁵ *Pla2g10*^{-/-} mice have decreased inflammatory cell infiltration and airway edema in a model of ovalbumin-induced allergic asthma.⁶ Airway lining fluid levels of sPLA₂ (Type X) are increased in patients with asthma.⁷ Cayman's sPLA₂ (human Type X) Polyclonal Antibody can be used for ELISA and Western Blot (WB) applications. This antibody recognizes sPLA₂ at 18 kDa from human samples.

References

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