

PRODUCT INFORMATION



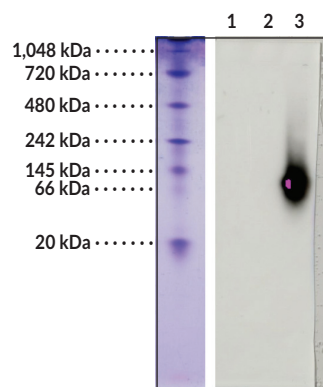
sPLA₂ (human Type X) Monoclonal Antibody (Clone 1A9)

Item No. 45420

Overview and Properties

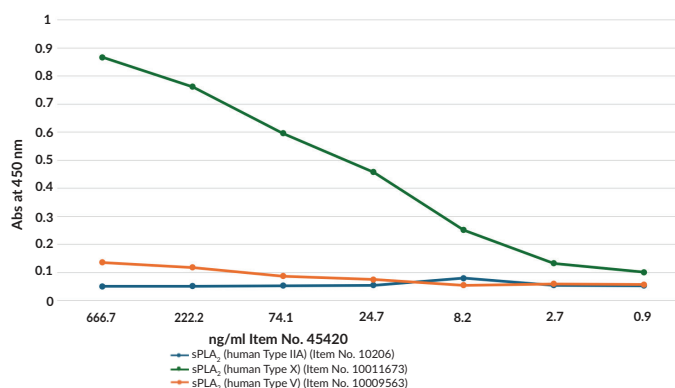
Contents:	This vial contains 100 µg of protein G-purified monoclonal antibody.
Synonyms:	Group 10 Secretory Phospholipase A ₂ , GXPLA ₂ , Phosphatidylcholine 2-Acylhydrolase 10, PLA2G10, Secretory Phospholipase A ₂ (human Group X), sPLA ₂ -X
Immunogen:	Recombinant sPLA ₂ (human type X)
Cross Reactivity:	(+) sPLA ₂ (Type X); (-) Other sPLA ₂ types
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
Clone:	1A9
Host:	Mouse
Isotype:	IgG2aK
Applications:	ELISA and Western blot (WB; native conditions); the recommended starting dilution is 1:1,000. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Lane 1: sPLA₂ (human Type IIA) (500 ng)
Lane 2: sPLA₂ (human Type V) (500 ng)
Lane 3: sPLA₂ (human Type X) (500 ng)

Western Blot. Protein samples were prepared in native sample buffer and loaded to a 4-20% gel (GenScript; Catalog No. M42012), then transferred to nitrocellulose and blocked with non-fat dry milk. The blot was probed with sPLA₂ (human Type X) Monoclonal Antibody (Clone 1A9) followed by a Goat Anti-Mouse IgG HRP secondary antibody (Item No. 10004302).



ELISA of sPLA₂ (human Type X) Monoclonal Antibody (Clone 1A9). Strips were coated with proteins and blocked with 1% BSA followed by probing with sPLA₂ (human Type X) Monoclonal Antibody (Clone 1A9) followed by a Goat Anti-Mouse IgG HRP secondary antibody (Item No. 10004302).

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 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) Monoclonal Antibody (Clone 1A9) can be used for ELISA and Western blot (WB; native conditions) applications.

References

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