PRODUCT INFORMATION

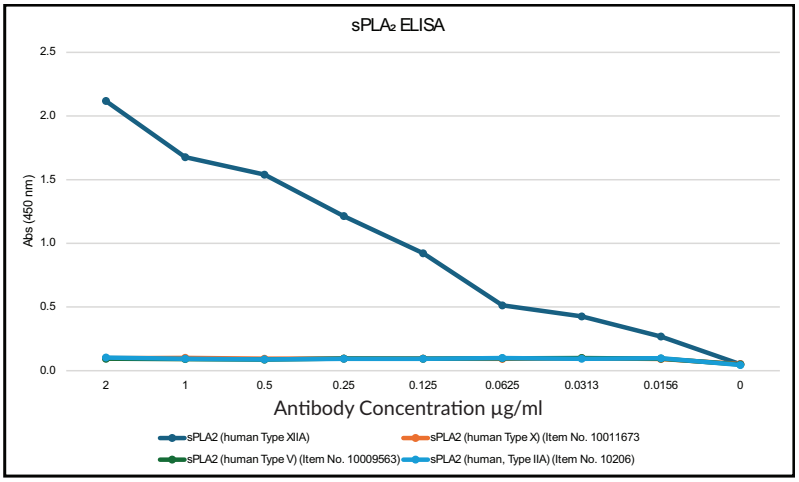
$sPLA_2$ (human Type XIIA) Monoclonal Antibody (Clone 44)

Item No. 45742

Overview and Properties

Contents:	This vial contains 100 µg of protein G-purified monoclonal antibody
Synonyms:	Group XIIA Secretory Phospholipase A_2, Group XIIA $sPLA_2$, GXIIA $sPLA_2$, Secretory Phospholipase A_2 (Type XIIA), $sPLA_2$-XIIA, PLA2G12A, Phosphatidylcholine 2-Acylhydrolase 12A
Immunogen:	Recombinant human $sPLA_2$ (Type XIIA)
Cross Reactivity:	(+) $sPLA_2$ (Type XIIA); (-) Other $sPLA_2$ types
Species Reactivity:	(+) Human
Uniprot No.:	Q9BZM1
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	PBS, pH 7.2, containing 50% glycerol and 0.02% NaN_3
Clone:	44
Host:	Mouse
Isotype:	IgG1K
Applications:	ELISA and WB; the recommended starting dilution is 1:1,000. Other applications were not tested; therefore, optimal working concentration/dilution should be determined empirically. Antibody has also been published to be effective for neutralizing $sPLA_2$ (Type XIIA) in mouse models.

Images



ELISA. Plates were coated with $sPLA_2$ protein, blocked with BSA, and probed with $sPLA_2$ (human Type XIIA) Monoclonal Antibody (Clone 44) (Item No. 45742) 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.

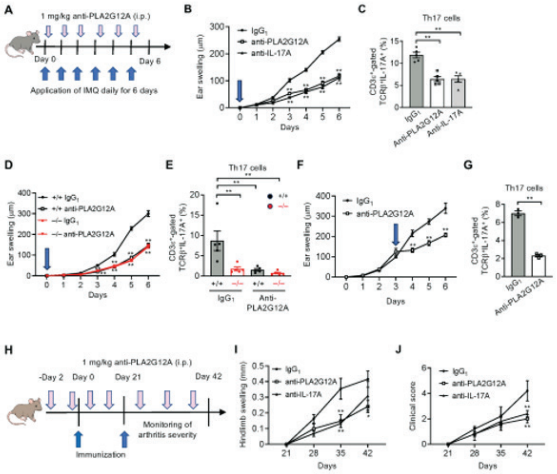
SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

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PRODUCT INFORMATION



Anti-PLA2G12A antibody ameliorates psoriasis and arthritis models.

Administration of $sPLA_2$ (human Type XIIA) Monoclonal Antibody (Clone 44) in mice results in amelioration of psoriasis and arthritis as determined by ear and hind limb swelling measurements and TCRβ+IL-17A in Th17 cells.

doi: https://doi.org/10.1016/j.celrep.2026.117391

Description

Secretory phospholipase A_2 ($sPLA_2$) (Type XIIA) is a ubiquitously expressed, calcium-dependent atypical PLA_2 superfamily member that is encoded by *PLA2G12A* in humans.[1,2] It is composed of a highly-conserved calcium-binding loop and a catalytic domain but shows low homology with conventional $sPLA_2$s outside of these structural motifs. $sPLA_2$ (Type XIIA) exhibits weak catalytic activity for arachidonic acid release from mammalian cell membranes.[1-3] It is involved in host defense but, unlike conventional $sPLA_2$ types, $sPLA_2$ (Type XIIA) is bactericidal against both Gram-negative and Gram-positive bacteria.[4] Overexpression of human $sPLA_2$ (Type XIIA) in mice protects against diet-induced obesity and insulin resistance independent of its enzymatic activity.[5] Administration of an anti-$sPLA_2$ (Type XIIA) antibody neutralizes $sPLA_2$ and decreases ear swelling and hindlimb swelling in mouse models of psoriasis and rheumatoid arthritis, respectively.[6] Serum levels of $sPLA_2$ (Type XIIA) are increased in patients with chronic obstructive pulmonary disease (COPD), and a SNP in *PLA2G12A* is associated with schizophrenia.[7,8] Cayman's $sPLA_2$ (human Type XIIA) Monoclonal Antibody (Clone 44) can be used for ELISA and Western blot (WB) applications.

References

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