

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human PLA2G2A in direct ELISAs and Western blots. In Western blots, approximately 60% cross-reactivity with recombinant mouse PLA2G2A is observed and less than 5% cross-reactivity with recombinant human (rh) PLA2G1B and rhPLA2G7 is
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human PLA2G2A Asn21-Cys144 Accession # P14555
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunoprecipitation	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Secretory phospholipase A₂ is an enzyme that hydrolyzes the *sn*-2 ester bond of phospholipids, generating non-esterified free fatty acids and lysophospholipids (1-4). Most secretory PLA₂s are stored in cytoplasmic granules and are released in the extracellular environment on appropriate cell activation. Thus, they are present at higher concentration in the plasma and biologic fluids of patients with systemic inflammatory, autoimmune, or allergic disease, such as acute pancreatitis, rheumatoid arthritis, bronchial asthma, and allergic rhinitis. PLA2G2A is a calcium dependent phospholipase expressed in many cell types associated with inflammation, including platelets, neutrophils, and mast cells. It has been recognized as an acute phase reactant and its concentration increases during systemic inflammation such as sepsis, rheumatoid arthritis, and cardiovascular disease (5). It may function as an enzymatic component of the host defense mechanism. For example, human tears contain a high concentration of PLA2G2A and this is the principal bactericidal factor against Gram-positive bacteria in this fluid (1). It may play a role in cell proliferation through binding a receptor on membrane surface or extracellular matrix components such as heparan sulfate proteoglycan and integrins (6). It has been shown to have pro-atherogenic properties both in the circulation and within the arterial wall (7). Circulating levels of PLA2G2A are higher in coronary artery disease (CAD) patients and are associated with increased risk of future CAD (8).

PRODUCT SPECIFIC NOTICES

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