

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 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 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

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.