



group IID sPLA₂ (M-13): sc-104297

BACKGROUND

Phospholipase A₂s (PLA₂s) constitute a family of esterases that hydrolyze the sn-2-acyl ester bond in glycerophospholipid molecules. These enzymes are generally calcium-dependent and have been found both intra- and extracellularly. By hydrolyzing the sn-2 bond in glycerophospholipids, PLA₂s release fatty acids. One such fatty acid, arachidonic acid, generates the substrates for the initiation of the arachidonic acid cascade that produces various eicosanoids, many of which are potent mediators of inflammation. As a member of the PLA₂ family, group IID sPLA₂, also known as PLA₂G2D (phosphatidylcholine 2-acylhydrolase 2D), sPLA₂-IID or SPLASH, is a 145 amino acid secreted protein that is broadly expressed but found at highest levels in pancreas and spleen. Group IID sPLA₂ catalyzes the reaction of phosphatidylcholine and water into 1-acylglycerophosphocholine and carboxylate, and has been linked to body weight loss in patients with chronic obstructive pulmonary disease (COPD), as well as lymphotoxin deficiency.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Pla2g2d (mouse) mapping to 4 D3.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

SOURCE

group IID sPLA₂ (M-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of group IID sPLA₂ of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-104297 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

group IID sPLA₂ (M-13) is recommended for detection of group IID sPLA₂ of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for group IID sPLA₂ siRNA (m): sc-105417, group IID sPLA₂ shRNA Plasmid (m): sc-105417-SH and group IID sPLA₂ shRNA (m) Lentiviral Particles: sc-105417-V.

Molecular Weight of group IID sPLA₂: 17 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.