

# group IVF sPLA<sub>2</sub> (A-13): sc-160400

## BACKGROUND

Phospholipase A<sub>2</sub>s (PLA<sub>2</sub>s) 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, PLA<sub>2</sub>s 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. Group IVF sPLA<sub>2</sub>, also known as PLA2G4FZ (cytosolic phospholipase A<sub>2</sub> ζ) or PLA2G4F (phospholipase A<sub>2</sub>, group IVF), is an 849 amino acid calcium-dependent phospholipase that contains one PLA<sub>2</sub>c domain and a C2 domain. Existing as three alternatively spliced isoforms, group IVF sPLA<sub>2</sub> has preferential enzyme activity for phosphatidylethanolamine over phosphatidylcholine.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: PLA2G4F (human) mapping to 15q15.1.

## SOURCE

group IVF sPLA<sub>2</sub> (A-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of group IVF sPLA<sub>2</sub> of human origin.

## STORAGE

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

## PRODUCT

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

Blocking peptide available for competition studies, sc-160400 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

group IVF sPLA<sub>2</sub> (A-13) is recommended for detection of group IVF sPLA<sub>2</sub> of human 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); non cross-reactive with other Phospholipase A<sub>2</sub> family members.

group IVF sPLA<sub>2</sub> (A-13) is also recommended for detection of group IVF sPLA<sub>2</sub> in additional species, including porcine.

Suitable for use as control antibody for group IVF sPLA<sub>2</sub> siRNA (h): sc-90284, group IVF sPLA<sub>2</sub> shRNA Plasmid (h): sc-90284-SH and group IVF sPLA<sub>2</sub> shRNA (h) Lentiviral Particles: sc-90284-V.

Molecular Weight of group IVF sPLA<sub>2</sub>: 95 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **group IVF sPLA<sub>2</sub> (C-6): sc-398729**, our highly recommended monoclonal alternative to group IVF sPLA<sub>2</sub> (A-13).