

# group XIIA sPLA<sub>2</sub> (W-12): sc-104302

## BACKGROUND

Secreted phospholipases A<sub>2</sub> (sPLA<sub>2</sub>s) form a large family of structurally related enzymes, which are widespread in nature. Snake venoms have been known for decades to contain a tremendous molecular diversity of sPLA<sub>2</sub>s, which can exert myriad toxic and pharmacological effects. Secreted phospholipase A<sub>2</sub> enzymes liberate arachidonic acid from phospholipids for production of eicosanoids and exert a variety of physiologic and pathologic effects. Group XII sPLA<sub>2</sub>s, such as group XIIA sPLA<sub>2</sub>, have relatively low specific activity and are structurally and functionally distinct from other sPLA<sub>2</sub>s. Group XIIA sPLA<sub>2</sub>, also known as GXII, ROSSY, PLA2G12 or PLA2G12A, is a 189 amino acid secreted protein that localizes to the cytoplasm. Belonging to the phospholipase A<sub>2</sub> family, group XIIA sPLA<sub>2</sub> is abundantly expressed in heart, skeletal muscle, kidney, liver and pancreas.

## CHROMOSOMAL LOCATION

Genetic locus: PLA2G12A (human) mapping to 4q25; Pla2g12a (mouse) mapping to 3 G3.

## SOURCE

group XIIA sPLA<sub>2</sub> (W-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of group XIIA sPLA<sub>2</sub> of human origin.

## 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-104302 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

group XIIA sPLA<sub>2</sub> (W-12) is recommended for detection of group XIIA sPLA<sub>2</sub> of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

group XIIA sPLA<sub>2</sub> (W-12) is also recommended for detection of group XIIA sPLA<sub>2</sub> in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for group XIIA sPLA<sub>2</sub> siRNA (h): sc-89136, group XIIA sPLA<sub>2</sub> siRNA (m): sc-105419, group XIIA sPLA<sub>2</sub> shRNA Plasmid (h): sc-89136-SH, group XIIA sPLA<sub>2</sub> shRNA Plasmid (m): sc-105419-SH, group XIIA sPLA<sub>2</sub> shRNA (h) Lentiviral Particles: sc-89136-V and group XIIA sPLA<sub>2</sub> shRNA (m) Lentiviral Particles: sc-105419-V.

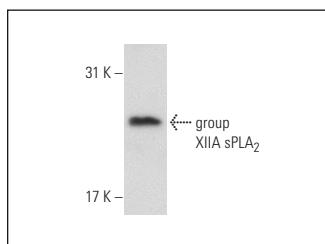
Molecular Weight of group XIIA sPLA<sub>2</sub>: 21 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

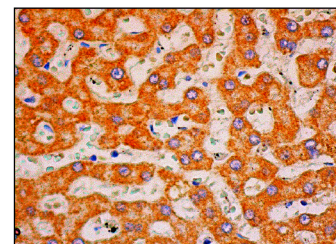
## RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



group XIIA sPLA<sub>2</sub> (W-12): sc-104302. Western blot analysis of group XIIA sPLA<sub>2</sub> expression in HeLa whole cell lysate.



group XIIA sPLA<sub>2</sub> (W-12): sc-104302. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **group XIIA sPLA<sub>2</sub> (E-9): sc-514423** or **group XIIA sPLA<sub>2</sub> (SP-34): sc-134352**, our highly recommended monoclonal alternatives to group XIIA sPLA<sub>2</sub> (W-12).