group XIIB sPLA₂ (S-17): sc-242962



The Power to Question

BACKGROUND

Secreted phospholipases A_2 (sPLA₂s) 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 sPLA₂s, which can exert a myriad of toxic and pharmacological effects. Secreted phospholipase A_2 enzymes liberate arachidonic acid from phospholipids for production of eicosanoids and exert a variety of physiologic and pathologic effects. Group XII sPLA₂s, such as group XIIB sPLA₂, have relatively low specific activity and are structurally and functionally distinct from other sPLA₂s. Group XIIB sPLA₂, also known as GXIIB, FKSG71 or PLA2G13, is a 195 amino acid secreted protein strongly expressed in liver, small intestine and kidney. Group XIIB sPLA₂ is encoded by a gene located human chromosome 10q22.1.

REFERENCES

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- Huhtinen, H.T., et al. 2006. Antibacterial effects of human group IIA and group XIIA phospholipase A₂ against *Helicobacter pylori in vitro*. APMIS. 114: 127-130.
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- Hallstrand, T.S., et al. 2007. Secreted phospholipase A₂ group X overexpression in asthma and bronchial hyperresponsiveness. Am. J. Respir. Crit. Care Med. 176: 1072-1078.
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CHROMOSOMAL LOCATION

Genetic locus: PLA2G12B (human) mapping to 10q22.1.

SOURCE

group XIIB $\rm sPLA_2$ (S-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of group XIIB $\rm sPLA_2$ of human origin.

RESEARCH USE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-242962 P, ($100 \mu g$ peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

group XIIB sPLA $_2$ (S-17) is recommended for detection of group XIIB sPLA $_2$ of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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).

group XIIB sPLA2 (S-17) is also recommended for detection of group XIIB sPLA₂ in additional species, including equine, canine and bovine.

Suitable for use as control antibody for group XIIB sPLA $_2$ siRNA (h): sc-90439, group XIIB sPLA $_2$ shRNA Plasmid (h): sc-90439-SH and group XIIB sPLA $_2$ shRNA (h) Lentiviral Particles: sc-90439-V.

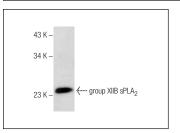
Molecular Weight of group XIIB sPLA2: 22 kDa.

Positive Controls: Human kidney tissue extract.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat lgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat lgG-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 lgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat lgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



group XIIB ${\rm sPLA_2}$ (S-17): sc-242962. Western blot analysis of group XIIB ${\rm sPLA_2}$ expression in human kidney tissue extract.

STORAGE

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