SANTA CRUZ BIOTECHNOLOGY, INC.

# group V $PLA_2$ (M-137): sc-135019

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

## BACKGROUND

Phospholipase $A_2$s ($PLA_2$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, $PLA_2$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 (i.e., prostaglandins, leukotrienes and thromboxanes), many of which are potent mediators of inflammation. $PLA_2$s include both the relatively low molecular weight group I, group II and group V enzymes and the form known as cytoplasmic $PLA_2$ ($cPLA_2$). $cPLA_2$ is present in macrophages, and hydrolyzes the sn-2 fatty acyl ester bond of phospholipids to produce a free fatty acid and a lysophospholid.

## CHROMOSOMAL LOCATION

Genetic locus: PLA2G5 (human) mapping to 1p36.13; Pla2g5 (mouse) mapping to 4 D3.

## SOURCE

group V $PLA_2$ (M-137) is a rabbit polyclonal antibody raised against amino acids 1-137 representing full length group V $PLA_2$ of mouse origin.

## PRODUCT

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

## STORAGE

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

## RESEARCH USE

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

## APPLICATIONS

group V $PLA_2$ (M-137) is recommended for detection of group V $PLA_2$ of mouse, rat and, to a lesser extent, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); may cross-react with other phospholipase A2 family members.

Suitable for use as control antibody for group V $PLA_2$ siRNA (m): sc-62825, group V $PLA_2$ siRNA (r): sc-270119, group V $PLA_2$ shRNA Plasmid (m): sc-62825-SH, group V $PLA_2$ shRNA Plasmid (r): sc-270119-SH, group V $PLA_2$ shRNA (m) Lentiviral Particles: sc-62825-V and group V $PLA_2$ shRNA (r) Lentiviral Particles: sc-270119-V.

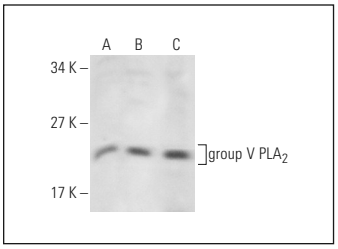
Molecular Weight of group V $PLA_2$: 14 kDa.

Positive Controls: A-10 cell lysate: sc-3806, NIH/3T3 whole cell lysate: sc-2210 or mouse thymus extract: sc-2406.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA




group V $PLA_2$ (M-137): sc-135019. Western blot analysis of group V $PLA_2$ expression in A-10 (**A**) and NIH/3T3 (**B**) whole cell lysates and mouse thymus tissue extract (**C**).

## PROTOCOLS

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

MONOS Satisfaction Guaranteed

Try **group V $PLA_2$ (C-4): sc-393606** or **group V $PLA_2$ (3G1): sc-18828**, our highly recommended monoclonal alternatives to group V $PLA_2$ (M-137).