SANTA CRUZ BIOTECHNOLOGY, INC.

group VI iPLA$_2$ (A-10): sc-137189

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Phospholipases catalyze the release of fatty acids from phospho-lipids. One member of the phospholipase family, iPLA$_2$, is detected as a membrane-bound protein with multiple smaller isoforms, which result from alternative splicing. Two isoforms, Ankyrin-iPLA$_2$-1 and 2, lack the catalytic domain and are thought to be involved in the negative regulation of iPLA$_2$ activity. The SH-iPLA$_2$ isoform is cytoplasmic-ally localized. The human gene encoding iPLA$_2$ maps to chromosome 22q13.1. Another phopholipase, sPLA$_2$, belongs to a family of secretory phospholipases A$_2$, which represent an expanding family of related enzymes. sPLA$_2$ has both membrane bound and secreted forms that are encoded by a single gene. sPLA$_2$ is involved in the regulation of phospholipid metabolism in biomembranes and in eicosanoid biosynthesis.

REFERENCES

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3. Cupillard, L., Koumanov, K., Mattei, M.G., Lazdunski, M. and Lambeau, G. 1997. Cloning, chromosomal mapping, and expression of a novel human secretory phospholipase A$_2$. J. Biol. Chem. 272: 15745-15752.
4. Kitadokoro, K., Hagishita, S., Sato, T., Ohtani, M. and Miki, K. 1998. Crystal structure of human secretory phospholipase A$_2$-IIA complex with the potent indolizine inhibitor 120-1032. J. Biochem. 123: 619-623.
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6. Larsson-Forsell, P.K., Kennedy, B.P. and Claesson, H.E. 1999. The human calcium-independent phospholipase A$_2$ gene multiple enzymes with distinct properties from a single gene. Eur. J. Biochem. 262: 575-585.

CHROMOSOMAL LOCATION

Genetic locus: PLA2G6 (human) mapping to 22q13.1; Pla2g6 (mouse) mapping to 15 E1.

SOURCE

group VI iPLA$_2$ (A-10) is a mouse monoclonal antibody raised against amino acids 1-120 of group VI iPLA$_2$ of human origin.

PRODUCT

Each vial contains 200 µg IgG$_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

group VI iPLA$_2$ (A-10) is recommended for detection of calcium-independent PLA$_2$ of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for group VI iPLA$_2$ siRNA (h): sc-43819, group VI iPLA$_2$ siRNA (m): sc-43820, group VI iPLA$_2$ siRNA (r): sc-270117, group VI iPLA$_2$ shRNA Plasmid (h): sc-43819-SH, group VI iPLA$_2$ shRNA Plasmid (m): sc-43820-SH, group VI iPLA$_2$ shRNA Plasmid (r): sc-270117-SH, group VI iPLA$_2$ shRNA (h) Lentiviral Particles: sc-43819-V, group VI iPLA$_2$ shRNA (m) Lentiviral Particles: sc-43820-V and group VI iPLA$_2$ shRNA (r) Lentiviral Particles: sc-270117-V.

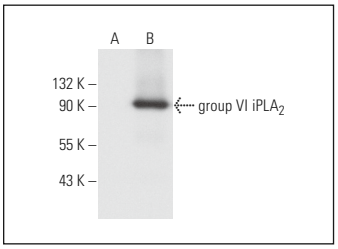
Molecular Weight of group VI iPLA$_2$: 88 kDa.

Positive Controls: group VI iPLA$_2$ (h): 293T Lysate: sc-116309 or rat testis extract: sc-2400.

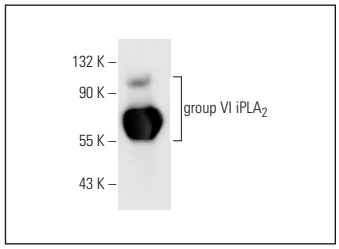
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



group VI iPLA$_2$ (A-10): sc-137189. Western blot analysis of group VI iPLA$_2$ expression in non-transfected: sc-117752 (**A**) and human group VI iPLA$_2$ transfected: sc-116309 (**B**) 293T whole cell lysates.



group VI iPLA$_2$ (A-10): sc-137189. Western blot analysis of group VI iPLA$_2$ expression in rat testis tissue extract.

STORAGE

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