

group VI iPLA₂ (H-120): sc-25504

BACKGROUND

Phospholipases catalyze the release of fatty acids from phospholipids. One member of the phospholipase family, iPLA₂, is detected as a membrane-bound protein with multiple smaller isoforms, which result from alternative splicing. Two isoforms, ankyrin-iPLA₂-1 and 2, lack the catalytic domain and are thought to be involved in the negative regulation of iPLA₂ activity. The SHiPLA₂ isoform is cytoplasmically localized. The human gene encoding iPLA₂ maps to chromosome 22q13.1. Another phospholipase, sPLA₂, belongs to a family of secretory phospholipases A₂, which represent an expanding family of related enzymes. sPLA₂ has both membrane bound and secreted forms that are encoded by a single gene. sPLA₂ is involved in the regulation of phospholipid metabolism in biomembranes and in eicosanoid biosynthesis.

REFERENCES

1. Scott, D.L., et al. 1991. Structures of free and inhibited human secretory phospholipase A₂ from inflammatory exudate. *Science* 254: 1007-1010.
2. Lehninger, A., et al. 1993. Principles of Biochemistry Second Edition. New York: Worth Publishers.

CHROMOSOMAL LOCATION

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

SOURCE

group VI iPLA₂ (H-120) is a rabbit polyclonal antibody raised against amino acids 1-120 of group VI iPLA₂ 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.

APPLICATIONS

group VI iPLA₂ (H-120) is recommended for detection of calcium-independent PLA₂ 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

group VI iPLA₂ (H-120) is also recommended for detection of calcium-independent PLA₂ in additional species, including equine and canine.

Suitable for use as control antibody for group VI iPLA₂ siRNA (h): sc-43819, group VI iPLA₂ siRNA (m): sc-43820, group VI iPLA₂ shRNA Plasmid (h): sc-43819-SH, group VI iPLA₂ shRNA Plasmid (m): sc-43820-SH, group VI iPLA₂ shRNA (h) Lentiviral Particles: sc-43819-V and group VI iPLA₂ shRNA (m) Lentiviral Particles: sc-43820-V.

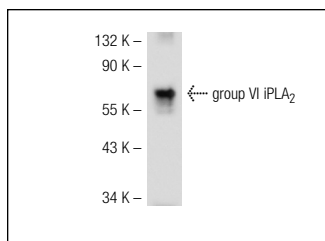
Molecular Weight of group VI iPLA₂: 88 kDa.

Positive Controls: rat testis extract: sc-2400.

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 VI iPLA₂ (H-120): sc-25504. Western blot analysis of group VI iPLA₂ expression in 293T whole cell lysate.

SELECT PRODUCT CITATIONS

1. Poulsen, K.A., et al. 2007. Induction of group VIA phospholipase A₂ activity during *in vitro* ischemia in C2C12 myotubes is associated with changes in the level of its splice variants. *Am. J. Physiol., Cell Physiol.* 293: C1605-C1615.
2. Kolko, M., et al. 2009. Calcium-independent phospholipase A₂ regulates retinal pigment epithelium proliferation and may be important in the pathogenesis of retinal diseases. *Exp. Eye Res.* 89: 383-391.
3. Ben-Tekaya, H., et al. 2010. ADP ribosylation factors 1 and 4 and group VIA phospholipase A₂ regulate morphology and intraorganellar traffic in the endoplasmic reticulum-Golgi intermediate compartment. *Mol. Biol. Cell* 21: 4130-4140.

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.


 MONOS
Satisfaction
Guaranteed

Try **group VI iPLA₂ (D-4): sc-376563** or **group VI iPLA₂ (E-8): sc-166616**, our highly recommended monoclonal alternatives to group VI iPLA₂ (H-120).