

group VI iPLA₂ (T-14): sc-14463

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 SH-iPLA₂ 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.

CHROMOSOMAL LOCATION

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

SOURCE

group VI iPLA₂ (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of 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.

Blocking peptide available for competition studies, sc-14463 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

group VI iPLA₂ (T-14) 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 (T-14) is also recommended for detection of calcium-independent PLA₂ in additional species, including equine, canine, bovine and porcine.

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: group VI iPLA₂ (h): 293T Lysate: sc-116309, group VI iPLA₂ (m2): 293T Lysate: sc-120641 or rat testis extract: sc-2400.

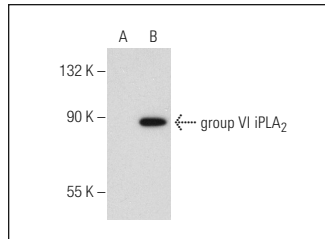
STORAGE

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

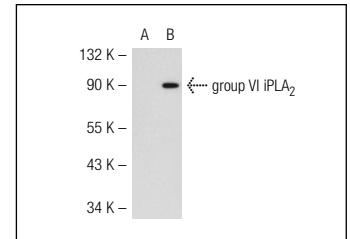
RESEARCH USE

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

DATA



group VI iPLA₂ (T-14): sc-14463. Western blot analysis of group VI iPLA₂ expression in non-transfected: sc-117752 (A) and mouse group VI iPLA₂ transfected: sc-120641 (B) 293T whole cell lysates.



group VI iPLA₂ (T-14): sc-14463. Western blot analysis of group VI iPLA₂ expression in non-transfected: sc-117752 (A) and mouse group VI iPLA₂ transfected: sc-120641 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Mangikian, A.D., et al. 2004. Cell cycle dependence of group VIA calcium-independent phospholipase A₂ activity. *J. Biol. Chem.* 279: 52881-52892.
- Zhang, X.H., et al. 2006. Disruption of G₁-phase phospholipid turnover by inhibition of Ca²⁺-independent phospholipase A₂ induces a p53-dependent cell-cycle arrest in G₁ phase. *J. Cell Sci.* 119: 1005-1015.
- Kolko, M., et al. 2007. Identification of intracellular phospholipases A₂ in the human eye: involvement in phagocytosis of photoreceptor outer segments. *Invest. Ophthalmol. Vis. Sci.* 48: 1401-1409.
- Kuwata, H., et al. 2007. A novel role of group VIB calcium-independent phospholipase A₂ (iPLA_{2γ}) in the inducible expression of group IIA secretory PLA₂ in rat fibroblastic cells. *J. Biol. Chem.* 282: 20124-20132.
- Amanchy, R., et al. 2009. Identification of c-Src tyrosine kinase substrates in platelet-derived growth factor receptor signaling. *Mol. Oncol.* 3: 439-450.

PROTOCOLS

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


 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 (T-14).