

# iPLA<sub>2</sub>γ (E-14): sc-241491

## BACKGROUND

iPLA<sub>2</sub>γ, also known as PNPLA8 (patatin-like phospholipase domain containing 8) or IPLA22, is a 782 amino acid single-pass membrane protein that localizes to both the golgi and the endoplasmic reticulum and contains one patatin domain. Expressed as multiple alternatively spliced isoforms, iPLA<sub>2</sub>γ functions as a calcium-independent phospholipase A<sub>2</sub> that cleaves membrane phospholipids and catalyzes the hydrolysis of the sn-2 position of glycerophospholipids. iPLA<sub>2</sub>γ is present in a variety of tissues, including brain, placenta, heart, liver and pancreas and skeletal muscle, where it exhibits optimal activity at a pH of 8.0. The gene encoding iPLA<sub>2</sub>γ maps to human chromosome 7, which houses over 1,000 genes and comprises nearly 5% of the human genome. Defects in some of the genes localized to chromosome 7 have been linked to Osteogenesis imperfecta, Williams-Beuren syndrome, Pendred syndrome, Lissencephaly, Citrullinemia and Shwachman-Diamond syndrome.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: PNPLA8 (human) mapping to 7q31.1; Pnpla8 (mouse) mapping to 12 B3.

## RESEARCH USE

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

## SOURCE

iPLA<sub>2</sub>γ (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of iPLA<sub>2</sub>γ 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-241491 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

iPLA<sub>2</sub>γ (E-14) is recommended for detection of iPLA<sub>2</sub>γ of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

iPLA<sub>2</sub>γ (E-14) is also recommended for detection of iPLA<sub>2</sub>γ in additional species, including canine.

Suitable for use as control antibody for iPLA<sub>2</sub>γ siRNA (h): sc-89772, iPLA<sub>2</sub>γ siRNA (m): sc-155910, v shRNA Plasmid (h): sc-89772-SH, iPLA<sub>2</sub>γ shRNA Plasmid (m): sc-155910-SH, iPLA<sub>2</sub>γ shRNA (h) Lentiviral Particles: sc-89772-V and iPLA<sub>2</sub>γ shRNA (m) Lentiviral Particles: sc-155910-V.

Molecular Weight of iPLA<sub>2</sub>γ: 77 kDa.

## RECOMMENDED SECONDARY REAGENTS

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

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.