SANTA CRUZ BIOTECHNOLOGY, INC.

PLA1A (K-20): sc-79672

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Members of the AB hydrolase superfamily have diverse catalytic functions and play a crucial role in the metabolism of lipids. PLA1A (phospholipase A1 member A), also known as NMD or PSPLA1, is a 456 amino acid secreted protein that belongs to the AB hydrolase superfamily. Expressed in a variety of tissues, including liver, placenta and prostate, PLA1A functions to hydrolyze the ester bond at the sn-1 position of phosphatidylserine (PS) and 1-acyl-2-lysophosphatidylserine (lyso-PS), thus producing 2-acyl lysophospholipids and playing a role in histamine production. Three isoforms of PLA1A exist due to alternative splicing events. The gene encoding PLA1A maps to human chromosome 3, which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci. Key tumor suppressing genes on chromosome 3 include those that encode the apoptosis mediator RASSF1, the cell migration regulator HYAL1 and the angiogenesis suppressor SEMA3B. Marfan syndrome, porphyria, von Hippel-Lindau syndrome, osteogenesis imperfecta and Charcot-Marie-Tooth Disease are a few of the numerous genetic diseases associated with chromosome 3.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PLA1A (human) mapping to 3q13.33; Pla1a (mouse) mapping to 16 B4.

SOURCE

PLA1A (K-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PLA1A 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-79672 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PLA1A (K-20) is recommended for detection of PLA1A 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).

Suitable for use as control antibody for PLA1A siRNA (h): sc-76160, PLA1A siRNA (m): sc-76161, PLA1A shRNA Plasmid (h): sc-76160-SH, PLA1A shRNA Plasmid (m): sc-76161-SH, PLA1A shRNA (h) Lentiviral Particles: sc-76160-V and PLA1A shRNA (m) Lentiviral Particles: sc-76161-V.

Molecular Weight of PLA1A: 50 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.

RESEARCH USE

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

PROTOCOLS

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