SANTA CRUZ BIOTECHNOLOGY, INC.

NAPE-PLD (S-14): sc-163118

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

NAPE-PLD (N-acyl-phosphatidylethanolamine-hydrolyzing phospholipase D), also known as FMP30, is a 393 amino acid membrane protein and phospholipase D type enzyme that hydrolyzes N-acyl-phosphatidylethanolamines (NAPEs) to produce N-acylethanolamines (NAEs) and phosphatidic acid. Existing as a monomer, NAPE-PLD binds one or two zinc ions per subunit and is stimulated by divalent cations. NAPE-PLD also plays an essential role in the production of anandamide, a protein which acts as a ligand for vanilloid and cannabinoid receptors. The gene encoding NAPE-PLD maps to human chromosome 7, which houses over 1,000 genes and comprises nearly 5% of the human genome. Chromosome 7 has been linked to Osteogenesis imperfecta, Pendred syndrome, Lissencephaly, Citrullinemia and Shwachman-Diamond syndrome.

CHROMOSOMAL LOCATION

Genetic locus: NAPEPLD (human) mapping to 7q22.1; Napepld (mouse) mapping to 5 A3.

SOURCE

NAPE-PLD (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NAPE-PLD 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-163118 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

NAPE-PLD (S-14) is recommended for detection of NAPE-PLD 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).

Suitable for use as control antibody for NAPE-PLD siRNA (h): sc-89408, NAPE-PLD siRNA (m): sc-149828, NAPE-PLD shRNA Plasmid (h): sc-89408-SH, NAPE-PLD shRNA Plasmid (m): sc-149828-SH, NAPE-PLD shRNA (h) Lentiviral Particles: sc-89408-V and NAPE-PLD shRNA (m) Lentiviral Particles: sc-149828-V.

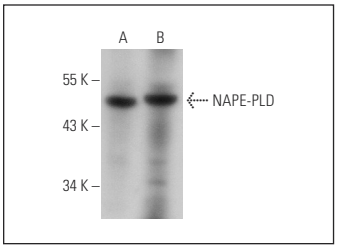
Molecular Weight of NAPE-PLD: 46 kDa.

Positive Controls: mouse brain extract: sc-2253 or rat cerebellum extract: sc-2398.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



NAPE-PLD (S-14): sc-163118. Western blot analysis of NAPE-PLD expression in rat cerebellum (**A**) and mouse brain (**B**) tissue extracts.

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.

MONOS Satisfaction Guaranteed

Try **NAPE-PLD (E-8): sc-514372**, our highly recommended monoclonal alternative to NAPE-PLD (S-14).