SANTA CRUZ BIOTECHNOLOGY, INC.

PAF acetylhydrolase (N-20): sc-16952

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The platelet activating factor (PAF) acetylhydrolases catalyze hydrolysis of the sn-2 ester bond of PAF and related pro-inflammatory phospholipids and thus attenuate their bioactivity. The family of PAF acetylhydrolases include one secreted plasma isozyme and four intracellular proteins. The intracellular isozymes are distinguished by differences in their primary sequence, tissue localization, subunit composition and substrate preferences. The most thoroughly characterized intracellular isoform, Ib, contains two homologous (63% identity) catalytic subunits (α1 and α2), which harbor all the enzyme's activity and a regulatory β subunit. The α subunits readily associate with very high affinity to form homodimers, and this dimerization is essential for both stability and catalytic activity. The β subunit is a product of the LIS1 gene, mutations of which cause Miller-Dieker lissencephaly.

CHROMOSOMAL LOCATION

Genetic locus: PLA2G7 (human) mapping to 6p12.3; Pla2g7 (mouse) mapping to 17 B3.

SOURCE

PAF acetylhydrolase (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PAF acetylhydrolase 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-16952 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

PAF acetylhydrolase (N-20) is recommended for detection of PAF acetylhydrolase of human and, to a lesser extent, mouse and rat 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PAF acetylhydrolase (N-20) is also recommended for detection of PAF acetylhydrolase in additional species, including equine and bovine.

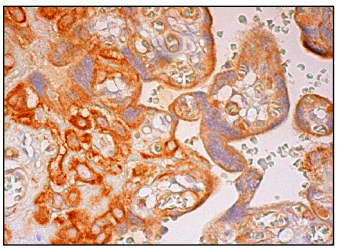
Suitable for use as control antibody for PAF acetylhydrolase siRNA (h): sc-39691, PAF acetylhydrolase siRNA (m): sc-39692, PAF acetylhydrolase shRNA Plasmid (h): sc-39691-SH, PAF acetylhydrolase shRNA Plasmid (m): sc-39692-SH, PAF acetylhydrolase shRNA (h) Lentiviral Particles: sc-39691-V and PAF acetylhydrolase shRNA (m) Lentiviral Particles: sc-39692-V.

Molecular Weight: 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



PAF acetylhydrolase (N-20): sc-16952. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic staining of trophoblastic cells and decidual cells.

SELECT PRODUCT CITATIONS

1. Wu, X., Zimmerman, G.A., Prescott, S.M. and Stafforini, D.M. 2004. The p38 MAPK pathway mediates transcriptional activation of the plasma platelet-activating factor acetylhydrolase gene in macrophages stimulated with lipopolysaccharide. J. Biol. Chem. 279: 36158-36165.
2. Foulks, J.M., Marathe, G.K., Michetti, N., Stafforini, D.M., Zimmerman, G.A., McIntyre, T.M. and Weyrich, A.S. 2009. PAF-acetylhydrolase expressed during megakaryocyte differentiation inactivates PAF-like lipids. Blood 113: 6699-6706.

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.