SANTA CRUZ BIOTECHNOLOGY, INC.

LENG4 (P-15): sc-243245

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The membrane-bound O-acyltransferase family is a group of integral membrane proteins with acyltransferase activity. LENG4 (membrane bound O-acyltransferase domain containing 7), also known as lysophospholipid acyltransferase 7, leukocyte receptor cluster member 4, MBOAT7, BB1, LPLAT 7, LRC4 or OACT7, is a 472 amino acid multi-pass membrane protein involved in lipid and phospholipid metabolism. LENG4 belongs to the membrane-bound acyltransferase family and participates in the Land cycle by catalyzing reacylation of phospholipids. LENG4 is responsible for the conversion of lysophosphatidylinositol into phosphatidylinositol, and prefers arachidonoyl-CoA as its acyl donor. Overexpressed in metastatic breast and bladder carcinomas, LENG4 is down-regulated by gamma-interferon. Three LENG4 isoforms exist due to alternative splicing events, and LENG4 is encoded by a gene mapping to human chromosome 19q13.42.

REFERENCES

1. Fukunaga-Johnson, N., et al. 1996. Molecular analysis of a gene, BB1, overexpressed in bladder and breast carcinoma. Anticancer Res. 16: 1085-1090.
2. Wende, H., et al. 2000. Extensive gene duplications and a large inversion characterize the human leukocyte receptor cluster. Immunogenetics 51: 703-713.
3. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 606048. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Matsuda, S., et al. 2008. Member of the membrane-bound O-acyltransferase (MBOAT) family encodes a lysophospholipid acyltransferase with broad substrate specificity. Genes Cells 13: 879-888.
5. Gijón, M.A., et al. 2008. Lysophospholipid acyltransferases and arachidonate recycling in human neutrophils. J. Biol. Chem. 283: 30235-30245.
6. Shindou, H., et al. 2009. Recent progress on acyl CoA: lysophospholipid acyltransferase research. J. Lipid Res. 50: S46-S51.

CHROMOSOMAL LOCATION

Genetic locus: MBOAT7 (human) mapping to 19q13.42; Mboat7 (mouse) mapping to 7 A1.

SOURCE

LENG4 (P-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of LENG4 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-243245 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

LENG4 (P-15) is recommended for detection of LENG4 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); non cross-reactive with LENG1, LENG8 or LENG9.

LENG4 (P-15) is also recommended for detection of LENG4 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for LENG4 siRNA (h): sc-97194, LENG4 siRNA (m): sc-146703, LENG4 shRNA Plasmid (h): sc-97194-SH, LENG4 shRNA Plasmid (m): sc-146703-SH, LENG4 shRNA (h) Lentiviral Particles: sc-97194-V and LENG4 shRNA (m) Lentiviral Particles: sc-146703-V.

Molecular Weight of LENG4 isoforms: 55/45/38 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

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 or our catalog for detailed protocols and support products.