SANTA CRUZ BIOTECHNOLOGY, INC.

PLSCR1 (m): 293T Lysate: sc-122654

BACKGROUND

The calcium-dependent plasma membrane protein phospholipid scramblase 1 (PLSCR1) contributes to the transbilayer movement of phosphatidylserine and other membrane phospholipids upon influx of calcium into the cytosol. This movement results in plasma membrane phospholipid remodelling and surface exposure of phosphatidylserine in injured or apoptotic cells, which leads to cell death. Interferons and other cytokines induce expression of PLSCR1, implying that PLSCR1 also functions in cytokine signaling pathways. EGF stilmulation results in tyrosine phosphorylation of PLSCR1 on Tyrosines 69 and 74, which allows it to interact with Shc, and thereby connecting Src kinase activation to stimulation of the EGF receptor.

REFERENCES

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3. Nanjundan, M., et al. 2003. Plasma membrane phospholipid scramblase 1 promotes EGF-dependent activation of c-Src through the epidermal growth factor receptor. J. Biol. Chem. 278: 37413-3748.
4. Chen, M.H., et al. 2004. Phospholipid scramblase 1 (PLSCR1) contains a nonclassical nuclear localization signal with unique binding site in importin α. J. Biol. Chem. 280: 10599-10606.
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6. Zhao, K.W., et al. 2004. Protein kinase C δ mediates retinoic acid and phorbol myristate acetate-induced phospholipid scramblase 1 gene expression: its role in leukemic cell differentiation. Blood 104: 3731-3738.
7. Ben-Efraim, I., et al. 2004. Phospholipid scramblase 1 is imported into the nucleus by a receptor-mediated pathway and interacts with DNA. Biochemistry 43: 3518-3526.
8. Frasch, S.C., et al. 2004. Phospholipid flip-flop and phospholipid scramblase 1 (PLSCR1) co-localize to uropod rafts in formylated Met-Leu-Phe-stimulated neutrophils. J. Biol. Chem. 279: 17625-17633.

CHROMOSOMAL LOCATION

Genetic locus: Plscr1 (mouse) mapping to 9 E3.3.

PRODUCT

PLSCR1 (m): 293T Lysate represents a lysate of mouse PLSCR1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

PLSCR1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive PLSCR1 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RESEARCH USE

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

PROTOCOLS

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