SANTA CRUZ BIOTECHNOLOGY, INC.

SERINC1 (L-18): sc-244110

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BIOTECHNOLOGY

The Power to Question

BACKGROUND

SERINC1 (serine incorporator 1) is a 453 amino acid multi-pass membrane protein that belongs to the TDE1 family. Localizing to endoplasmic reticulum membrane, the SERINC1 protein enhances the incorporation of serine into phosphatidylserine and sphingolipids. Serinc1 expression in rat brain overlaps that of glutamatergic excitatory neurons and is induced by kainite-induced seizure stimulation. Because SERINC proteins contain 11 transmembrane segments resembling amino acid transporters, SERINC1 may also function as an L-serine transporter by carrying serine molecules into the hydrophobic milieu of membrane lipid bilayers. SERINC1 interacts with SPTLC1. The SERINC1 gene is conserved in chimpanzee, canine, bovine, mouse, rat, chicken, zebrafish, fruit fly, mosquito, *C. elegans, S. pombe, S. cerevisiae, K. lactis, E. gossypii, M. grisea, N. crassa, A. thaliana* and rice, and maps to human chromosome 6p22.31.

REFERENCES

1. Clark, H.F., et al. 2003. The secreted protein discovery initiative (SPDI), a large-scale effort to identify novel human secreted and transmembrane proteins: a bioinformatics assessment. Genome Res. 13: 2265-2270.

2. Mungall, A.J., et al. 2003. The DNA sequence and analysis of human chromosome 6. Nature 425: 805-811.

3. Inuzuka, M., et al. 2005. Serinc, an activity-regulated protein family, incorporates serine into membrane lipid synthesis. J. Biol. Chem. 280: 35776-35783.

4. Bossolasco, M., et al. 2006. Human TDE1, a TDE1/TMS family member, inhibits apoptosis *in vitro* and stimulates *in vivo* tumorigenesis. Oncogene 25: 4549-4558.

5. Cowart, L.A. and Hannun, Y.A. 2007. Selective substrate supply in the regulation of yeast *de novo* sphingolipid synthesis. J. Biol. Chem. 282: 12330-12340.

6. Vieira, A.R., et al. 2008. Candidate gene/loci studies in cleft lip/palate and dental anomalies finds novel susceptibility genes for clefts. Genet. Med. 10: 668-674.

CHROMOSOMAL LOCATION

Genetic locus: SERINC1 (human) mapping to 6q22.31.

SOURCE

SERINC1 (L-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of SERINC1 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-244110 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

SERINC1 (L-18) is recommended for detection of SERINC1 of 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 SERINC4 or SERINC5 .

SERINC1 (L-18) is also recommended for detection of SERINC1 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for SERINC1 siRNA (h): sc-95506, SERINC1 shRNA Plasmid (h): sc-95506-SH and SERINC1 shRNA (h) Lentiviral Particles: sc-95506-V.

Molecular Weight of SERINC1: 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.

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.