SANTA CRUZ BIOTECHNOLOGY, INC.

SERINC4 (Q-14): sc-248555

BACKGROUND

SERINC4 (serine incorporator 4) is a 518 amino acid multi-pass membrane protein that belongs to the TDE1 family. The SERINC4 protein incorporates a polar amino acid serine into membranes and facilitates the synthesis of two serine-derived lipids, phosphatidylserine and sphingolipids. Because SERINC proteins contain 11 transmembrane segments resembling amino acid transporters, SERINC4 may also function as an L-serine transporter by carrying serine molecules into the hydrophobic milieu of membrane lipid bilayers. Existing as two alternatively spliced isoforms, the SERINC4 gene is conserved in canine, bovine, mouse, rat, chicken and zebrafish, and maps to human chromosome 15q15.3. Encoding more than 700 genes, chromosome 15 is made up of approximately 106 million base pairs and consists of about 3% of the human genome. Angelman and Prader-Willi syndromes are associated with loss of function or deletion of genes in the 15q11-q13 region.

REFERENCES

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2. Zody, M.C., Garber, M., Sharpe, T., Young, S.K., Rowen, L., et al. 2006. Analysis of the DNA sequence and duplication history of human chromosome 15. Nature 440: 671-675.
3. Diene, G., Postel-Vinay, A., Pinto, G., Polak, M. and Tauber, M. 2007. The Prader-Willi syndrome. Ann. Endocrinol. 68: 129-137.
4. Lalande, M. and Calciano, M.A. 2007. Molecular epigenetics of Angelman syndrome. Cell. Mol. Life Sci. 64: 947-960.
5. Makoff, A.J. and Flomen, R.H. 2007. Detailed analysis of 15q11-q14 sequence corrects errors and gaps in the public access sequence to fully reveal large segmental duplications at breakpoints for Prader-Willi, Angelman, and inv dup(15) syndromes. Genome Biol. 8: R114.
6. Vieira, A.R., McHenry, T.G., Daack-Hirsch, S., Murray, J.C. and Marazita, M.L. 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: SERINC4 (human) mapping to 15q15.3.

SOURCE

SERINC4 (Q-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SERINC4 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-248555 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SERINC4 (Q-14) is recommended for detection of SERINC4 of 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); non cross-reactive with SERINC1 or SERINC5.

SERINC4 (Q-14) is also recommended for detection of SERINC4 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SERINC4 siRNA (h): sc-90015, SERINC4 shRNA Plasmid (h): sc-90015-SH and SERINC4 shRNA (h) Lentiviral Particles: sc-90015-V.

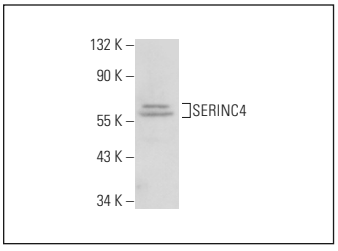
Molecular Weight of SERINC4 isoforms 1/2: 57/31 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

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



SERINC4 (Q-14): sc-248555. Western blot analysis of SERINC4 expression in Hep G2 whole cell lysate.

STORAGE

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

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.