SANTA CRUZ BIOTECHNOLOGY, INC.

SPNS1 (P-14): sc-165570

BACKGROUND

SPNS1 (spinster homolog 1), also known as LAT, nrs or SPINL, is a 528 amino acid multi-pass membrane protein that localizes to the inner mitochondrial membrane and belongs to the spinster subfamily of the major facilitator superfamily. Existing as four alternatively spliced isoforms, SPNS1 interacts with Bcl-x and Bcl-2 and, via this interaction, is thought to be involved in necrotic or autophagic cell death. The gene encoding SPNS1 maps to human chromosome 16, which encodes over 900 genes and comprises nearly 3% of the human genome. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, as is Crohn's disease, which is a gastrointestinal inflammatory condition.

REFERENCES

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3. Yanagisawa, H., Miyashita, T., Nakano, Y. and Yamamoto, D. 2003. HSpin1, a transmembrane protein interacting with Bcl-2/Bcl-x_L, induces a caspase-independent autophagic cell death. Cell Death Differ. 10: 798-807.
4. An, H., Morrell, J.L., Jennings, J.L., Link, A.J. and Gould, K.L. 2004. Requirements of fission yeast septins for complex formation, localization, and function. Mol. Biol. Cell 15: 5551-5564.
5. Rakha, E.A., Green, A.R., Powe, D.G., Roylance, R. and Ellis, I.O. 2006. Chromosome 16 tumor-suppressor genes in breast cancer. Genes Chromosomes Cancer 45: 527-535.

CHROMOSOMAL LOCATION

Genetic locus: SPNS1 (human) mapping to 16p11.2; Spns1 (mouse) mapping to 7 F3.

SOURCE

SPNS1 (P-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SPNS1 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-165570 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

SPNS1 (P-14) is recommended for detection of SPNS1 of mouse, rat and 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 SPNS2 or SPNS3.

SPNS1 (P-14) is also recommended for detection of SPNS1 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for SPNS1 siRNA (h): sc-93215, SPNS1 siRNA (m): sc-153775, SPNS1 shRNA Plasmid (h): sc-93215-SH, SPNS1 shRNA Plasmid (m): sc-153775-SH, SPNS1 shRNA (h) Lentiviral Particles: sc-93215-V and SPNS1 shRNA (m) Lentiviral Particles: sc-153775-V.

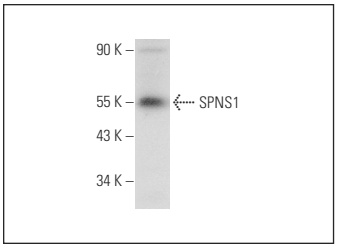
Molecular Weight of SPNS1: 57 kDa.

Positive Controls: SW480 cell lysate: sc-2219.

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



SPNS1 (P-14): sc-165570. Western blot analysis of SPNS1 expression in SW480 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.

PROTOCOLS

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