

# SPTSSA (N-12): sc-240031

## BACKGROUND

C14orf147 (chromosome 14 open reading frame 147), also known as SSSPTA (small subunit of serine palmitoyltransferase A), is a 71 amino acid multi-pass membrane protein of the endoplasmic reticulum that stimulates serine palmitoyltransferase (SPT) activity. A member of the ssSPT family and SsSPTA sub-family, C14orf147 directly interacts with SPTLC1 and is encoded by a gene that maps to human chromosome 14q13.1. Chromosome 14 encodes the presenilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease. The SERPINA1 gene is located on chromosome 14 and when defective leads to the genetic disorder  $\alpha$ 1-antitrypsin deficiency. Notably, the immunoglobulin heavy chain locus is found on chromosome 14 and has been identified as a fusion with the chromosome 19 encoded protein BCL3 in the (14;19) translocations found in a variety of B cell malignancies.

## REFERENCES

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3. Stolk, J., et al. 2006.  $\alpha$ 1-antitrypsin deficiency: current perspective on research, diagnosis, and management. *Int. J. Chron. Obstruct. Pulmon. Dis.* 1: 151-160.
4. Vetrivel, K.S., et al. 2006. Pathological and physiological functions of presenilins. *Mol. Neurodegener.* 1: 4.
5. Albani, D., et al. 2007. Presenilin-1 mutation E318G and familial Alzheimer's disease in the Italian population. *Neurobiol. Aging* 28: 1682-1688.
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8. Martín-Subero, J.I., et al. 2007. A comprehensive genetic and histopathologic analysis identifies two subgroups of B-cell malignancies carrying a t(14;19)(q32;q13) or variant BCL3-translocation. *Leukemia* 21: 1532-1544.

## CHROMOSOMAL LOCATION

Genetic locus: SPTSSA (human) mapping to 14q13.1; 1110002B05Rik (mouse) mapping to 12 C1.

## SOURCE

SPTSSA (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal cytoplasmic domain of SPTSSA of human origin.

## STORAGE

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

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-240031 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SPTSSA (N-12) is recommended for detection of SPTSSA of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

Suitable for use as control antibody for SPTSSA siRNA (h): sc-92363, SPTSSA siRNA (m): sc-108137, SPTSSA shRNA Plasmid (h): sc-92363-SH, SPTSSA shRNA Plasmid (m): sc-108137-SH, SPTSSA shRNA (h) Lentiviral Particles: sc-92363-V and SPTSSA shRNA (m) Lentiviral Particles: sc-108137-V.

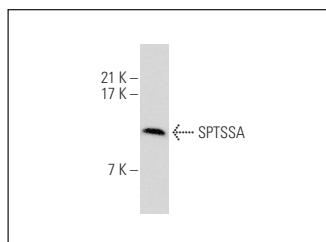
Molecular Weight of SPTSSA: 8 kDa.

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) 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



SPTSSA (N-12): sc-240031. Western blot analysis of SPTSSA expression in Jurkat whole cell lysate.

## RESEARCH USE

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