SANTA CRUZ BIOTECHNOLOGY, INC.

SPCS2 (Y-13): sc-131075

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The Power to Question

BACKGROUND

SPCS2 (signal peptidase complex subunit 2), also known as SPC25 or microsomal signal peptidase 25 kDa subunit, is a 226 amino acid multi-pass membrane protein that localizes to both the microsome and the endoplasmic reticulum (ER), and belongs to the SPCS (signal peptidase complex subunit) family. Existing as a component of the microsomal signal peptidase complex which consists of five members, SPCS2 removes signal peptides from nascent proteins as they are translocated into the lumen of the ER. The gene encoding SPCS2 is located on human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that maps to chromosome 11.

REFERENCES

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4. Greenburg, G. and Blobel, G. 1994. cDNA-derived primary structure of the 25-kDa subunit of canine microsomal signal peptidase complex. J. Biol. Chem. 269: 25354-25358.
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7. Kalies, K.U., Rapoport, T.A. and Hartmann, E. 1998. The β subunit of the Sec61 complex facilitates cotranslational protein transport and interacts with the signal peptidase during translocation. J. Cell Biol. 141: 887-894.

CHROMOSOMAL LOCATION

Genetic locus: SPCS2 (human) mapping to 11q13.4; Spcs2 (mouse) mapping to 7 E2.

SOURCE

SPCS2 (Y-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of SPCS2 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 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-131075 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SPCS2 (Y-13) is recommended for detection of SPCS2 of mouse, rat and 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 SPCS3.

SPCS2 (Y-13) is also recommended for detection of SPCS2 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for SPCS2 siRNA (h): sc-97020, SPCS2 siRNA (m): sc-153731, SPCS2 shRNA Plasmid (h): sc-97020-SH, SPCS2 shRNA Plasmid (m): sc-153731-SH, SPCS2 shRNA (h) Lentiviral Particles: sc-97020-V and SPCS2 shRNA (m) Lentiviral Particles: sc-153731-V.

Molecular Weight of SPCS2: 25 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.