SANTA CRUZ BIOTECHNOLOGY, INC.

SAS (K-11): sc-240844

BACKGROUND

SAS (sarcoma amplified sequence), also known as TSPAN31 (tetraspanin-31), is a 210 amino acid multi-pass membrane protein that belongs to the tetraspanin (TM4SF) family. Most members of the TM4SF family are cell-surface proteins that are characterized by the presence of four hydrophobic domains. The TM4SF proteins mediate signal transduction events that play a role in the regulation of cell development, activation, growth and motility. Thought to be involved in growth-related cellular processes, SAS is associated with tumorigenesis and osteosarcoma. Containing six exons spanning approximately 3.2 kb, the SAS gene is conserved in chimpanzee, canine, bovine, mouse, rat and zebrafish, and maps to human chromosome 12q14.1. This chromosomal region is commonly involved in rearrangements in myxoid liposarcoma, benign lipoma and uterine leiomyoma.

REFERENCES

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3. Wright, M.D., et al. 1994. The ins and outs of the transmembrane 4 superfamily. Immunol. Today 15: 588-594.
4. Jankowski, S.A., et al. 1994. SAS, a gene amplified in human sarcomas, encodes a new member of the transmembrane 4 superfamily of proteins. Oncogene 9: 1205-1211.
5. Jankowski, S.A., et al. 1995. Genomic structure of SAS, a member of the transmembrane 4 superfamily amplified in human sarcomas. Genomics 25: 501-506.
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7. Ragazzini, P., et al. 1999. Analysis of SAS gene and CDK4 and MDM2 proteins in low-grade osteosarcoma. Cancer Detect. Prev. 23: 129-136.
8. Wunder, J.S., et al. 1999. Co-amplification and overexpression of CDK4, SAS and MDM2 occurs frequently in human parosteal osteosarcomas. Oncogene 18: 783-788.
9. Ragazzini, P., et al. 2004. Amplification of CDK4, MDM2, SAS and GLI genes in leiomyosarcoma, alveolar and embryonal rhabdomyosarcoma. Histol. Histopathol. 19: 401-411.

CHROMOSOMAL LOCATION

Genetic locus: TSPAN31 (human) mapping to 12q14.1.

SOURCE

SAS (K-11) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of SAS 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-240844 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SAS (K-11) is recommended for detection of SAS 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 other SAS family members.

SAS (K-11) is also recommended for detection of SAS in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SAS siRNA (h): sc-95687, SAS shRNA Plasmid (h): sc-95687-SH and SAS shRNA (h) Lentiviral Particles: sc-95687-V.

Molecular Weight of SAS: 23 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.

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.