SANTA CRUZ BIOTECHNOLOGY, INC.

SAS-6 (G-20): sc-82362



BACKGROUND

SAS-6 (spindle assembly abnormal protein 6 homolog, HsSAS-6) is a 657 amino acid protein encoded by the human gene SAS6. SAS-6 is a component of the centrosome that contains one PISA (present in SAS-6) domain. LK4, SAS-6, CPAP and other centriole related proteins are required at different stages of procentriole formation and were associated with different centriolar structures. SAS-6 associates only transiently with nascent procentrioles, whereas CEP135 and CPAP form a core structure within the proximal lumen of both parental and nascent centrioles. SAS-6 is necessary for procentriole formation in human cell lines and is localized asymmetrically next to the centriole at the onset of procentriole formation. SAS-6 levels oscillate during the cell cycle; it is degraded in mitosis starting at anaphase, and it accumulates again at the end of the following G_1 phase. The anaphase-promoting complex targets SAS-6 for degradation by the 26S Proteasome, and a KEN box in the C-terminus of SAS-6 is necessary for its degradation. Increased SAS-6 levels promoted the formation of multiple procentrioles forming next to a single centriole.

REFERENCES

- Leidel, S., Delattre, M., Cerutti, L., Baumer, K. and Gönczy, P. 2005. SAS-6 defines a protein family required for centrosome duplication in *C. elegans* and in human cells. Nat. Cell Biol. 7: 115-125.
- Leidel, S. and Gönczy, P. 2005. Centrosome duplication and nematodes: recent insights from an old relationship. Dev. Cell 9: 317-325.
- 3. Delattre, M., Canard, C. and Gönczy, P. 2006. Sequential protein recruitment in *C. elegans* centriole formation. Curr. Biol. 16: 1844-1849.
- Pelletier, L., O'Toole, E., Schwager, A., Hyman, A.A. and Müller-Reichert, T. 2006. Centriole assembly in *Caenorhabditis elegans*. Nature 444: 619-623.
- Peel, N., Stevens, N.R., Basto, R. and Raff, J.W. 2007. Overexpressing centriole-replication proteins *in vivo* induces centriole overduplication and *de vivo* formation. Curr. Biol. 17: 834-843.
- Rodrigues-Martins, A., Bettencourt-Dias, M., Riparbelli, M., Ferreira, C., Ferreira, I., Callaini, G. and Glover, D.M. 2007. DSAS-6 organizes a tubelike centriole precursor, and its absence suggests modularity in centriole assembly. Curr. Biol. 17: 1465-1472.
- Vladar, E.K. and Stearns, T. 2007. Molecular characterization of centriole assembly in ciliated epithelial cells. J. Cell Biol. 178: 31-42.

CHROMOSOMAL LOCATION

Genetic locus: SASS6 (human) mapping to 1p21.2; Sass6 (mouse) mapping to 3 G1.

SOURCE

SAS-6 (G-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SAS-6 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 lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-82362 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SAS-6 (G-20) is recommended for detection of SAS-6 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).

Suitable for use as control antibody for SAS-6 siRNA (h): sc-76454, SAS-6 siRNA (m): sc-76455, SAS-6 shRNA Plasmid (h): sc-76454-SH, SAS-6 shRNA Plasmid (m): sc-76455-SH, SAS-6 shRNA (h) Lentiviral Particles: sc-76454-V and SAS-6 shRNA (m) Lentiviral Particles: sc-76455-V.

Molecular Weight of SAS-6: 74 kDa.

Positive Controls: human testis tissue extract, U-2 OS cell lysate: sc-2295 or MOLT-4 cell lysate: sc-2233.

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) Immunofluo-rescence: 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.

MONOS Satisfation Guaranteed

Try SAS-6 (91.390.21): sc-81431 or SAS-6 (G-1):

sc-376836, our highly recommended monoclonal aternatives to SAS-6 (G-20). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see SAS-6 (91.390.21): sc-81431.