

SAS-6 (C-20): sc-82360

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 G₁ 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.
- 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 novo* formation. *Curr. Biol.* 17: 834-843.

CHROMOSOMAL LOCATION

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

SOURCE

SAS-6 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of SAS-6 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-82360 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

SAS-6 (C-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), 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).

SAS-6 (C-20) is also recommended for detection of SAS-6 in additional species, including equine, canine, bovine, porcine and avian.

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.

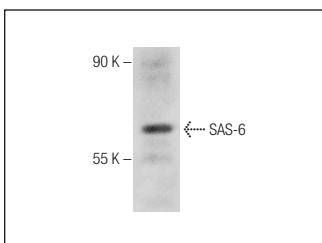
Molecular Weight of SAS-6: 74 kDa.

Positive Controls: U-2 OS cell lysate: sc-2295, MOLT-4 cell lysate: sc-2233 or Raji whole cell lysate: sc-364236.

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



SAS-6 (C-20): sc-82360. Western blot analysis of SAS-6 expression in Raji whole cell lysate.

RESEARCH USE

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

MONOS
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Try **SAS-6 (91.390.21): sc-81431** or **SAS-6 (G-1): sc-376836**, our highly recommended monoclonal alternatives to SAS-6 (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **SAS-6 (91.390.21): sc-81431**.