

SAS-6 (G-1): sc-376836

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.

CHROMOSOMAL LOCATION

Genetic locus: SASS6 (human) mapping to 1p21.2.

SOURCE

SAS-6 (G-1) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of SAS-6 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SAS-6 (G-1) is available conjugated to agarose (sc-376836 AC), 500 µg/0.25 ml agarose in 1 ml, for IP.

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 (G-1) is recommended for detection of SAS-6 of human origin by Western Blotting (starting dilution 1:100, 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).

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

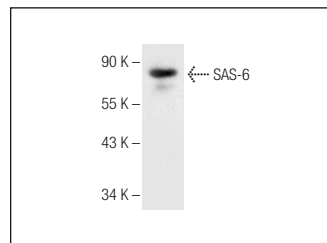
Molecular Weight of SAS-6: 74 kDa.

Positive Controls: human testis extract: sc-363781 or MOLT-4 cell lysate: sc-2233.

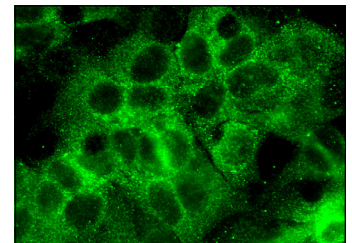
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



SAS-6 (G-1): sc-376836. Western blot analysis of SAS-6 expression in MOLT-4 whole cell lysate.



SAS-6 (G-1): sc-376836. Immunofluorescence staining of formalin-fixed Hep G2 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Wang, W.J., et al. 2015. *De novo* centriole formation in human cells is error-prone and does not require SAS-6 self-assembly. *Elife* 4: e10586.
2. Seo, M.Y. and Rhee, K. 2018. Caspase-mediated cleavage of the centrosomal proteins during apoptosis. *Cell Death Dis.* 9: 571.
3. Gupta, H., et al. 2020. SAS-6 association with γ-Tubulin ring complex is required for centriole duplication in human cells. *Curr. Biol.* 30: 2395-2403.e4.
4. Jung, G.I., et al. 2021. Triple deletion of TP53, PCNT, and CEP215 promotes centriole amplification in the M phase. *Cell Cycle* 20: 1500-1517.
5. Huang, Y.J., et al. 2022. The JMJD6/HURP axis promotes cell migration via NFκB-dependent centrosome repositioning and Cdc42-mediated Golgi repositioning. *J. Cell. Physiol.* 237: 4517-4530.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.



See **SAS-6 (91.390.21): sc-81431** for SAS-6 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.