SANTA CRUZ BIOTECHNOLOGY, INC.

SAS-4 (C-230): sc-98949

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The centrosome is the primary microtubule organizing center (MTOC) in animal cells and also functions to regulate cell-cycle progression. Centrosomes are made up of a centriole pair that is encompassed by a matrix of pericentriolar material (PCM) which anchors microtubule nucleation sites and therefore controls the amount and organization of microtubules in interphase and mitotic cells. Spindle assembly abnormal proteins 4, 5 and 6 (SAS-4, -5 and -6) represent coiled-coil proteins that are essential for *Caenorhabditis elegans* centriole formation. SAS-4 is incorporated into centrioles during centriole duplication and remains there throughout the cell cycle. The amount of SAS-4 present is directly correlated with centrosome size, and in the absence of SAS-4, centriole duplication fails. Tube formation and elongation requires the presence of SAS-5 and SAS-6, while the assembly of singlet microtubules onto the central tube depends on SAS-4.

REFERENCES

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2. Leidel, S. and Gönczy, P. 2003. SAS-4 is essential for centrosome duplication in *C. elegans* and is recruited to daughter centrioles once per cell cycle. Dev. Cell 4: 431-439.
3. Wong, C. and Stearns T.I. 2003. Dispatch. Centrosome biology: a SAS-sy centriole in the cell cycle. Curr. Biol. 13: 351-352.
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5. Delattre, M. and Gönczy, P. 2004. The arithmetic of centrosome biogenesis. J. Cell Sci. 117: 1619-1630.
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7. Basto, R., Lau, J., Vinogradova, T., Gardiol, A., Woods, C.G., Khodjakov, A. and Raff, J.W. 2006. Flies without centrioles. Cell 125: 1375-1386.
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SOURCE

SAS-4 (C-230) is a rabbit polyclonal antibody raised against amino acids 128-354 mapping within an internal region of SAS-4 of *C. elegans* origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

SAS-4 (C-230) is recommended for detection of SAS-4 of *Caenorhabditis elegans* 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).

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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.