SANTA CRUZ BIOTECHNOLOGY, INC.

CLASP1 (H-70): sc-66832



1101000010 00030

BACKGROUND

Members of the CLASP family, including CLASP1, are mammalian microtubule plus-end binding proteins that interact with CLIPs in order to stabilize the microtubule structures in transfected cells. CLASP1 localizes near the distal end of growing spindle microtubules during mitosis and is a component of the outer corona region of kinetochores. CLASP proteins stabilize microtubules by promoting pauses and restricting MT growth. Defects in CLASP1 cause collapse of the spindle, attachment of kinetochores to short microtubules, and other abnormal mitotic behaviors.

REFERENCES

- Lemos, C.L., Sampaio, P., Maiato, H., Costa, M., Omel'yanchuk, L.V., Liberal, V. and Sunkel, C.E. 2000. Mast, a conserved microtubule-associated protein required for bipolar mitotic spindle organization. EMBO J. 19: 3668-3682.
- Akhmanova, A., Hoogenraad, C.C., Drabek, K., Stepanova, T., Dortland, B., Verkerk, T., Vermeulen, W., Burgering, B.M., De Zeeuw, C.I., Grosveld, F. and Galjart, N. 2001. CLASPs are CLIP-115 and -170 associating proteins involved in the regional regulation of microtubule dynamics in motile fibroblasts. Cell 104: 923-935.
- Maiato, H., Rieder, C.L., Earnshaw, W.C. and Sunkel, C.E. 2003. How do kinetochores CLASP dynamic microtubules? Cell Cycle 2: 511-514.
- Maiato, H., Fairley, E.A., Rieder, C.L., Swedlow, J.R., Sunkel, C.E. and Earnshaw, W.C. 2003. Human CLASP1 is an outer kinetochore component that regulates spindle microtubule dynamics. Cell 113: 891-904.
- Mimori-Kiyosue, Y., Grigoriev, I., Lansbergen, G., Sasaki, H., Matsui, C., Severin, F., Galjart, N., Grosveld, F., Vorobjev, I., Tsukita, S. and Akhmanova, A. 2005. CLASP1 and CLASP2 bind to EB1 and regulate microtubule plusend dynamics at the cell cortex. J. Cell Biol. 168: 141-153.
- 6. Venables, J.P., Bourgeois, C.F., Dalgliesh, C., Kister, L., Stevenin, J. and Elliott, D.J. 2005. Upregulation of the ubiquitous alternative splicing factor Tra2 β causes inclusion of a germ cell-specific exon. Hum. Mol. Genet. 14: 2289-2303.

CHROMOSOMAL LOCATION

Genetic locus: CLASP1 (human) mapping to 2q14.2; Clasp1 (mouse) mapping to 1 E2.3.

SOURCE

CLASP1 (H-70) is a rabbit polyclonal antibody raised against amino acids 26-95 mapping near the N-terminus of CLASP1 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.

STORAGE

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

APPLICATIONS

CLASP1 (H-70) is recommended for detection of CLASP1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

CLASP1 (H-70) is also recommended for detection of CLASP1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CLASP1 siRNA (h): sc-44348, CLASP1 siRNA (m): sc-44352, CLASP1 shRNA Plasmid (h): sc-44348-SH, CLASP1 shRNA Plasmid (m): sc-44352-SH, CLASP1 shRNA (h) Lentiviral Particles: sc-44348-V and CLASP1 shRNA (m) Lentiviral Particles: sc-44352-V.

Molecular Weight of CLASP1: 150 kDa.

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.