SANTA CRUZ BIOTECHNOLOGY, INC.

Kar9 (yD-20): sc-27307

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Cortical factors play a key role in the orientation of the spindle. Kar9 is a cortical protein that is required for the correct positioning of the mitotic spindle and the orientation of the cytoplasmic microtubules. Kar9 was originally identified as a bilateral karyogamy mutant, in which the two zygotic nuclei remained widely separated and the cytoplasmic microtubules were misoriented. The role of Kar9 in nuclear positioning is to coordinate the interactions between the Actin and microtubule networks.

REFERENCES

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2. Yeh, E., et al. 2000. Dynamic positioning of mitotic spindles in yeast: role of microtubule motors and cortical determinants. Mol. Biol. Cell. 11: 3949-3961.
3. Daum, J.R., et al. 2000. The spindle checkpoint of *Saccharomyces cerevisiae* responds to separable microtubule-dependent events. Curr. Biol. 10: 1375-1378.
4. Beach, D.L., et al. 2000. The role of the proteins Kar9 and Myo2 in orienting the mitotic spindle of budding yeast. Curr. Biol. 10: 1497-1506.
5. Hoepfner, D., et al. 2002. Reorientation of mispositioned spindles in short astral microtubule mutant spc72Delta is dependent on spindle pole body outer plaque and Kar3 motor protein. Mol. Biol. Cell. 13: 1366-1380.
6. Kusch, J., et al. 2002. Microtubule capture by the cleavage apparatus is required for proper spindle positioning in yeast. Genes Dev. 16: 1627-1639.
7. Segal, M., et al. 2002. Kar9p-independent microtubule capture at Bud6p cortical sites primes spindle polarity before bud emergence in *Saccharomyces cerevisiae*. Mol. Biol. Cell. 13: 4141-4155.
8. Maekawa, H., et al. 2003. Yeast Cdk1 translocates to the plus end of cytoplasmic microtubules to regulate bud cortex interactions. Embo. J. 22: 438-449.
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SOURCE

Kar9 (yD-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Kar9 of *Saccharomyces cerevisiae* origin (Accession/GI: 3915748).

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-27307 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

Kar9 (yD-20) is recommended for detection of Kar9 of *Saccharomyces cerevisiae* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of Kar9: 74 kDa.

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.

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.