

# Centriolin (N-20): sc-55911

## BACKGROUND

Cytokinesis occurs during the late stages of mitosis and describes the process by which the cytoplasm of one cell is divided to create two subsequent daughter cells. Centriolin, also known as CEP110, is a coiled-coil centrosomal protein that is required for centrosome maturation and correct centrosome function. During abscission, the last step in cytokinesis, Centriolin both coordinates and grounds vesicle-fusion and vesicle-exocyst complexes to the midbody of the daughter cells. Acting as an anchor for the protein complexes needed to complete separation of the two cells, Centriolin initiates and controls vesicle-mediated cell cleavage. Through its ability to signal initiation of the last step of vertebrate cytokinesis, Centriolin regulates cell proliferation and contributes to proper entry into the S phase of mitosis.

## REFERENCES

1. Guasch, G., Mack, G.J., Popovici, C., Dastugue, N., Birnbaum, D., Rattner, J.B. and Pébusque, M.J. 2000. FGFR1 is fused to the centrosome-associated protein CEP110 in the 8p12 stem cell myeloproliferative disorder with t(8;9)(p12;q33). *Blood* 95: 1788-1796.
2. Ou, Y.Y., Mack, G.J., Zhang, M. and Rattner, J.B. 2002. CEP110 and ninein are located in a specific domain of the centrosome associated with centrosome maturation. *J. Cell Sci.* 115: 1825-1835.
3. Gromley, A., Jurczyk, A., Sillibourne, J., Halilovic, E., Mogensen, M., Groisman, I., Blomberg, M. and Doxsey, S. 2003. A novel human protein of the maternal centriole is required for the final stages of cytokinesis and entry into S phase. *J. Cell Biol.* 161: 535-545.
4. Guinn, B.A., Bland, E.A., Lodi, U., Liggins, A.P., Tobal, K., Petters, S., Wells, J.W., Banham, A.H. and Mufti, G.J. 2005. Humoral detection of leukaemia-associated antigens in presentation acute myeloid leukaemia. *Biochem. Biophys. Res. Commun.* 335: 1293-1304.
5. Gromley, A., Yeaman, C., Rosa, J., Redick, S., Chen, C.T., Mirabelle, S., Guha, M., Sillibourne, J. and Doxsey, S.J. 2005. Centriolin anchoring of exocyst and SNARE complexes at the midbody is required for secretory-vesicle-mediated abscission. *Cell* 123: 75-87.
6. von Dassow, G. and Bement, W.M. 2005. A ring-like template for abscission. *Dev. Cell* 9: 578-580.
7. Szebenyi, G., Hall, B., Yu, R., Hashim, A.I. and Krämer, H. 2007. Hook2 localizes to the centrosome, binds directly to Centriolin/CEP110 and contributes to centrosomal function. *Traffic* 8: 32-46.
8. Szebenyi, G., Wigley, W.C., Hall, B., Didier, A., Yu, M., Thomas, P. and Krämer, H. 2007. Hook2 contributes to aggresome formation. *BMC Cell Biol.* 8: 19.

## CHROMOSOMAL LOCATION

Genetic locus: CNTRL (human) mapping to 9q33.2; Cep110 (mouse) mapping to 2 B.

## SOURCE

Centriolin (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Centriolin 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-55911 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Centriolin (N-20) is recommended for detection of Centriolin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Centriolin (N-20) is also recommended for detection of Centriolin in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Centriolin siRNA (h): sc-62094, Centriolin siRNA (m): sc-62095, Centriolin shRNA Plasmid (h): sc-62094-SH, Centriolin shRNA Plasmid (m): sc-62095-SH, Centriolin shRNA (h) Lentiviral Particles: sc-62094-V and Centriolin shRNA (m) Lentiviral Particles: sc-62095-V.

Molecular Weight of Centriolin: 110 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. 2) 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.

## STORAGE

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

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **Centriolin (C-9): sc-365521**, our highly recommended monoclonal alternative to Centriolin (N-20).