SANTA CRUZ BIOTECHNOLOGY, INC.

# Centriolin siRNA (h): sc-62094

## 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., et al. 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., et al. 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., et al. 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., et al. 2005. Humoral detection of leukaemia-associated antigens in presentation acute myeloid leukaemia. Biochem. Biophys. Res. Commun. 335: 1293-1304.
5. Gromley, A., et al. 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., et al. 2005. A ring-like template for abscission. Dev. Cell 9: 578-580.


## CHROMOSOMAL LOCATION

Genetic locus: CNTRL (human) mapping to 9q33.2.

## PRODUCT

Centriolin siRNA (h) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suit-able for 50-100 transfections. Also see Centriolin shRNA Plasmid (h): sc-62094-SH and Centriolin shRNA (h) Lentiviral Particles: sc-62094-V as alternate gene silencing products.

For independent verification of Centriolin (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-62094A, sc-62094B and sc-62094C.

## PROTOCOLS

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

## STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

Centriolin siRNA (h) is recommended for the inhibition of Centriolin expression in human cells.

## SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 µM in 66 µl. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

## GENE EXPRESSION MONITORING

Centriolin (C-9): sc-365521 is recommended as a control antibody for monitoring of Centriolin gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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) 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.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Centriolin gene expression knockdown using RT-PCR Primer: Centriolin (h)-PR: sc-62094-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## RESEARCH USE

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