

# CEP120 siRNA (m): sc-142043

## BACKGROUND

Centrosomes are the major microtubule-organizing centers of mammalian cells. They are composed of a centriole pair and surrounding microtubule-nucleating material termed pericentriolar material (PCM). Bipolar mitotic spindle assembly relies on two intertwined processes: centriole duplication and centrosome maturation. Failure to properly orchestrate centrosome duplication and maturation is subsequently linked to spindle defects, which can result in aneuploidy and promote cancer progression. CEP120 (centrosomal protein 120), also known as CCDC100 (coiled-coil domain-containing protein 100), is a 986 amino acid protein that is involved in the microtubule-dependent coupling of the nucleus and the centrosome. Existing as three alternatively spliced isoforms, CEP120 is thought to participate in centriole duplication during mitosis and interacts with TACC2 and TACC3.

## REFERENCES

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2. Ou, Y., Zhang, M. and Rattner, J.B. 2004. The centrosome: the centriole-PCM coalition. *Cell Motil. Cytoskeleton* 57: 1-7.
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4. Xie, Z., Moy, L.Y., Sanada, K., Zhou, Y., Buchman, J.J. and Tsai, L.H. 2007. Cep120 and TACCs control interkinetic nuclear migration and the neural progenitor pool. *Neuron* 56: 79-93.
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## CHROMOSOMAL LOCATION

Genetic locus: Cep120 (mouse) mapping to 18 D1.

## PRODUCT

CEP120 siRNA (m) 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see CEP120 shRNA Plasmid (m): sc-142043-SH and CEP120 shRNA (m) Lentiviral Particles: sc-142043-V as alternate gene silencing products.

For independent verification of CEP120 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-142043A, sc-142043B and sc-142043C.

## RESEARCH USE

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

## 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  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

CEP120 siRNA (m) is recommended for the inhibition of CEP120 expression in mouse 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  $\mu$ M in 66  $\mu$ l. 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.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor CEP120 gene expression knockdown using RT-PCR Primer: CEP120 (m)-PR: sc-142043-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## PROTOCOLS

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