

# HAUS3 siRNA (m): sc-141532

## BACKGROUND

The human augmin complex (HAUS) is an evolutionarily conserved 8-subunit protein complex that was initially discovered in *Drosophila*. The HAUS complex is essential for microtubule generation, centrosome integrity, mitotic spindle assembly and completion of cytokinesis. HAUS3 (HAUS augmin-like complex subunit 3), also known as C4orf15, is a 603 amino acid cytoplasmic protein belonging to the HAUS3 family. As part of the HAUS complex, HAUS3 participates in the maintenance of centrosome integrity, mitotic spindle assembly and completion of cytokinesis. The HAUS complex is required for spindle assembly via interactions with the  $\gamma$ -tubulin ring complex. Silencing of the gene encoding HAUS3 leads to a reduced  $\gamma$ -tubulin signal. HAUS3 localizes to the metaphase spindle and accumulates at the centrosome during interphase.

## REFERENCES

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4. Uehara, R., Nozawa, R.S., Tomioka, A., Petry, S., Vale, R.D., Obuse, C. and Goshima, G. 2009. The augmin complex plays a critical role in spindle microtubule generation for mitotic progression and cytokinesis in human cells. *Proc. Natl. Acad. Sci. USA* 106: 6998-7003.
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## CHROMOSOMAL LOCATION

Genetic locus: Haus3 (mouse) mapping to 5 B2.

## PRODUCT

HAUS3 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 HAUS3 shRNA Plasmid (m): sc-141532-SH and HAUS3 shRNA (m) Lentiviral Particles: sc-141532-V as alternate gene silencing products.

For independent verification of HAUS3 (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-141532A, sc-141532B and sc-141532C.

## 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

HAUS3 siRNA (m) is recommended for the inhibition of HAUS3 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 HAUS3 gene expression knockdown using RT-PCR Primer: HAUS3 (m)-PR: sc-141532-PR (20  $\mu$ l). 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.

## PROTOCOLS

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