



# SHROOM1 siRNA (h): sc-91959

## BACKGROUND

SHROOM1, also known as APXL2 (apical protein 2), is an 852 amino acid protein that contains one ASD1 domain and one ASD2 domain. Localized to both the cytoplasm and the cytoskeleton, SHROOM1 interacts with Actin and is thought to be involved in microtubule assembly during cell elongation, possibly playing a role in the development of the nervous system. Multiple isoforms of SHROOM1 exist due to alternative splicing events. The gene encoding SHROOM1 maps to human chromosome 5, which contains 181 million base pairs and comprises nearly 6% of the human genome. Deletion of the p arm of chromosome 5 leads to Cri du chat syndrome, while deletion of the q arm or of chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

## REFERENCES

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3. Hildebrand, J.D. 2005. Shroom regulates epithelial cell shape via the apical positioning of an actomyosin network. *J. Cell Sci.* 118: 5191-5203.
4. Hagens, O., et al. 2006. A new standard nomenclature for proteins related to Apx and Shroom. *BMC Cell Biol.* 7: 18.
5. Dietz, M.L., et al. 2006. Differential actin-dependent localization modulates the evolutionarily conserved activity of Shroom family proteins. *J. Biol. Chem.* 281: 20542-20554.
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## CHROMOSOMAL LOCATION

Genetic locus: SHROOM1 (human) mapping to 5q31.1.

## PRODUCT

SHROOM1 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see SHROOM1 shRNA Plasmid (h): sc-91959-SH and SHROOM1 shRNA (h) Lentiviral Particles: sc-91959-V as alternate gene silencing products.

For independent verification of SHROOM1 (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-91959A, sc-91959B and sc-91959C.

## 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

SHROOM1 siRNA (h) is recommended for the inhibition of SHROOM1 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  $\mu$ 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 SHROOM1 gene expression knockdown using RT-PCR Primer: SHROOM1 (h)-PR: sc-91959-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.