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# TUSC1 siRNA (m): sc-154806

## BACKGROUND

TUSC1 (tumor suppressor candidate gene 1 protein), also known as TSG-9, is a 209 amino acid protein that is highly expressed in testis and weakly expressed in muscle, colon, lung and spleen. It is suggested that TUSC1 may play a role in lung tumorigenesis. The gene encoding TUSC1 is located within the region of chromosome 9p which contains tumor suppressor genes critical in carcinogenesis. Chromosome 9 consists of about 145 million bases and 4% of the human genome and encodes nearly 900 genes. Considered to play a role in gender determination, deletion of the distal portion of 9p can lead to development of male to female sex reversal, the phenotype of a female with a male X,Y genotype. Chromosome 9 is partnered with chromosome 22 in the translocation leading to the aberrant production of Bcr-Abl fusion protein often found in leukemias.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: Tusc1 (mouse) mapping to 4 C5.

## PROTOCOLS

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

## PRODUCT

TUSC1 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 TUSC1 shRNA Plasmid (m): sc-154806-SH and TUSC1 shRNA (m) Lentiviral Particles: sc-154806-V as alternate gene silencing products.

For independent verification of TUSC1 (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-154806A, sc-154806B and sc-154806C.

## 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

TUSC1 siRNA (m) is recommended for the inhibition of TUSC1 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 TUSC1 gene expression knockdown using RT-PCR Primer: TUSC1 (m)-PR: sc-154806-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.