SANTA CRUZ BIOTECHNOLOGY, INC.

# LSm3 siRNA (m): sc-75708

## BACKGROUND

Sm and Sm-like (LSm) proteins form donut shaped heptameric complexes that are involved in various steps of RNA metabolism. Lsm proteins facilitate RNA protein interactions and structural changes that are required during ribosomal subunit assembly. LSm3 (U6 snRNA-associated Sm-like protein LSm3) is a 102 amino acid nuclear protein that specifically binds the 3'-terminal U-tract of U6 snRNA. The homomeric LSm3 octamer recruits LSm6, LSm2 and LSm5 to facilitate the formation of U4/U6 RNA duplices. The gene encoding LSm3 maps to human chromosome 3p25.1, which is made up of about 214 million bases encoding over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci. Marfan syndrome, porphyria, von Hippel-Lindau syndrome, osteogenesis imperfecta and Charcot-Marie-Tooth disease are a few of the numerous genetic diseases associated with chromosome 3.

## REFERENCES


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## CHROMOSOMAL LOCATION

Genetic locus: Lsm3 (mouse) mapping to 6 D1.

## PRODUCT

LSm3 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see LSm3 shRNA Plasmid (m): sc-75708-SH and LSm3 shRNA (m) Lentiviral Particles: sc-75708-V as alternate gene silencing products.

For independent verification of LSm3 (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-75708A, sc-75708B and sc-75708C.

## 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

LSm3 siRNA (m) is recommended for the inhibition of LSm3 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 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.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor LSm3 gene expression knockdown using RT-PCR Primer: LSm3 (m)-PR: sc-75708-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.

## PROTOCOLS

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