

# EXOSC5 siRNA (m): sc-144978

## BACKGROUND

The exosome is a multisubunit complex composed of several highly conserved subunits, some of which are 3' to 5' exoribonucleases. The complex is involved in a variety of cellular processes and is responsible for degrading unstable mRNAs that contain AU-rich (ARE) elements in their untranslated 3' region. EXOSC5 (exosome component 5), also known as Exosome complex exonuclease RRP46 and CML28 (chronic myelogenous leukemia tumor antigen 28), is one of at least eleven components of the exosome complex and is required for processing of 7S pre-rRNA to mature 5.8S rRNA. Located in the nucleus, EXOSC5 interacts with both EXOSC1 and EXOSC7. EXOSC5 is exclusively expressed in normal testis, though is found to be highly expressed in many hematopoietic and epithelial tumor cell lines, suggesting that it may be an appropriate target for antigen-specific immunotherapy.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: Exosc5 (mouse) mapping to 7 A3.

## PRODUCT

EXOSC5 siRNA (m) is a target-specific 19-25 nt siRNA 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 EXOSC5 shRNA Plasmid (m): sc-144978-SH and EXOSC5 shRNA (m) Lentiviral Particles: sc-144978-V as alternate gene silencing products.

## 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

EXOSC5 siRNA (m) is recommended for the inhibition of EXOSC5 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 EXOSC5 gene expression knockdown using RT-PCR Primer: EXOSC5 (m)-PR: sc-144978-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.