SANTA CRUZ BIOTECHNOLOGY, INC.

# Treslin siRNA (m): sc-140395

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

Treslin, also known as TICRR (TopBP1-interacting checkpoint and replication regulator), SLD3 or C15orf42, is a 1,910 amino acid nuclear protein that belongs to the Treslin family. Treslin is involved in the initiation and regulation of DNA replication via interactions with TopBP1 and the Cdk2-mediated packaging of Cdc45 onto replication origins. Treslin is required for the pre-replication complex (pre-RC) transition to pre-initiation complex (pre-IC), and for the prevention of mitotic entry after treatment with ionizing radiation. Existing as two alternatively spliced isoforms, Treslin is encoded by a gene that maps to human chromosome 15q26.1 and mouse chromosome 7 D3.

## REFERENCES


1. Gauci, S., Helbig, A.O., Slijper, M., Krijgsveld, J., Heck, A.J. and Mohammed, S. 2009. Lys-N and trypsin cover complementary parts of the phosphoproteome in a refined SCX-based approach. Anal. Chem. 81: 4493-4501.
2. Mayya, V., Lundgren, D.H., Hwang, S.I., Rezaul, K., Wu, L., Eng, J.K., Rodionov, V. and Han, D.K. 2009. Quantitative phosphoproteomic analysis of T cell receptor signaling reveals system-wide modulation of protein-protein interactions. Sci. Signal. 2: ra46.
3. Kumagai, A., Shevchenko, A., Shevchenko, A. and Dunphy, W.G. 2010. Treslin collaborates with TopBP1 in triggering the initiation of DNA replication. Cell 140: 349-359.
4. Sansam, C.L., Cruz, N.M., Danielian, P.S., Amsterdam, A., Lau, M.L., Hopkins, N. and Lees, J.A. 2010. A vertebrate gene, ticrr, is an essential checkpoint and replication regulator. Genes Dev. 24: 183-194.
5. Zegerman, P. and Diffley, J.F. 2010. Checkpoint-dependent inhibition of DNA replication initiation by Sld3 and Dbf4 phosphorylation. Nature 467: 474-478.
6. Lopez-Mosqueda, J., Maas, N.L., Jonsson, Z.O., Defazio-Eli, L.G., Wohlschlegel, J. and Toczyski, D.P. 2010. Damage-induced phosphorylation of Sld3 is important to block late origin firing. Nature 467: 479-483.
7. Wang, Z., Kim, E., Leffak, M. and Xu, Y.J. 2012. Treslin, DUE-B, and GEMC1 cannot complement Sld3 mutants in fission yeast. FEMS Yeast Res. 12: 486-490.


## CHROMOSOMAL LOCATION

Genetic locus: Ticrr (mouse) mapping to 7 D3.

## PRODUCT

Treslin 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Treslin shRNA Plasmid (m): sc-140395-SH and Treslin shRNA (m) Lentiviral Particles: sc-140395-V as alternate gene silencing products.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## 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

Treslin siRNA (m) is recommended for the inhibition of Treslin 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 Treslin gene expression knockdown using RT-PCR Primer: Treslin (m)-PR: sc-140395-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## PROTOCOLS

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