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# Torsin2A siRNA (m): sc-154557

## BACKGROUND

Torsin2A, also known as TOR2A or TORP1, is a 321 amino acid secreted protein that belongs to the clpA/clpB family and Torsin subfamily. Four alternatively spliced isoforms exist for Torsin2A, designated isoforms 1, 2, 3 and 3. Isoform 1 is ubiquitously expressed, with the exception of cardiac and endothelial tissues. Torsin2A is thought to be related to the AAA chaperone-like family of ATPases. Members of this family play a role in the assembly, disassembly and operation of a variety of protein complexes, confer increased tolerance to high temperature and promote specific proteolysis. The gene encoding Torsin2A maps to human chromosome 9q34.11 and mouse chromosome 2 B. Chromosome 9 consists of about 145 million bases and 4% of the human genome, encoding nearly 900 genes.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: Tor2a (mouse) mapping to 2 B.

## PRODUCT

Torsin2A siRNA (m) is a pool of 2 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 Torsin2A shRNA Plasmid (m): sc-154557-SH and Torsin2A shRNA (m) Lentiviral Particles: sc-154557-V as alternate gene silencing products.

For independent verification of Torsin2A (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-154557A and sc-154557B.

## PROTOCOLS

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

Torsin2A siRNA (m) is recommended for the inhibition of Torsin2A 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 Torsin2A gene expression knockdown using RT-PCR Primer: Torsin2A (m)-PR: sc-154557-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.