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### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

# SART-2 siRNA (m): sc-153225

## BACKGROUND

SART-2 (squamous cell carcinoma antigen recognized by T cells 2), also known as DSE (dermatan sulfate epimerase), is a 958 amino acid multi-pass membrane protein that belongs to the dermatan-sulfate isomerase family. The SART-2 protein converts D-glucuronic acid to L-iduronic acid (IdoUA) residues. Localized to the endoplasmic reticulum, SART-2 is ubiquitously expressed with higher expression in kidney and ovary and lower expression in brain, colon and thymus. Also expressed in renal cell carcinomas, brain tumors, and in a part of melanomas and adenocarcinomas from organs other than the breast, SART-2 is expressed in squamous cell carcinomas (SCC), glioma, and some adenocarcinoma cell lines, but not in breast cancer cell lines or any normal tissues (at protein level). Containing six exons, the SART-2 gene is conserved in chimpanzee, canine, bovine, mouse, rat, chicken and zebrafish, and maps to human chromosome 6q22.1.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: Dse (mouse) mapping to 10 B1.

## 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.

## PRODUCT

SART-2 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 SART-2 shRNA Plasmid (m): sc-153225-SH and SART-2 shRNA (m) Lentiviral Particles: sc-153225-V as alternate gene silencing products.

For independent verification of SART-2 (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-153225A, sc-153225B and sc-153225C.

## 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

SART-2 siRNA (m) is recommended for the inhibition of SART-2 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 SART-2 gene expression knockdown using RT-PCR Primer: SART-2 (m)-PR: sc-153225-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.