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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) 

# Sprm-1 siRNA (m): sc-153786

## BACKGROUND

Tissue-restricted POU domain transcription factors, which bind octamer or octamer-like gene sequences, play roles in cellular differentiation and the development of several organs. Belonging to the POU transcription factor family, Sprm-1 (Sperm 1 POU domain transcription factor), also known as POU5F2 (POU domain, class 5, transcription factor 2), is a 328 amino acid nuclear protein that contains one homeobox DNA-binding domain and one POU-specific domain. Sprm-1 is a transcription factor that preferentially binds to the octamer motif (5'-ATGTTAAT-3'). In the embryo, Sprm-1 expression is restricted to brain, whereas in the adult it is exclusively expressed in brain, skeletal muscle, lung, heart and germ cells. Homozygous null Sprm-1 mice are subfertile, yet exhibit normal testicular morphology and normal numbers of mobile spermatozoa, suggesting that Sprm-1 plays a regulatory role in the haploid spermatid.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: Pou5f2 (mouse) mapping to 13 C1.

## 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

Sprm-1 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 Sprm-1 shRNA Plasmid (m): sc-153786-SH and Sprm-1 shRNA (m) Lentiviral Particles: sc-153786-V as alternate gene silencing products.

For independent verification of Sprm-1 (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-153786A and sc-153786B.

## 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

Sprm-1 siRNA (m) is recommended for the inhibition of Sprm-1 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 Sprm-1 gene expression knockdown using RT-PCR Primer: Sprm-1 (m)-PR: sc-153786-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.