SZABO SCANDIC

Part of Europa Biosite

# Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

## Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand


**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

www.szabo-scandic.com

linkedin.com/company/szaboscandic

SANTA CRUZ BIOTECHNOLOGY, INC.

# Odf2L siRNA (m): sc-150177

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

The major cytoskeletal structures in the mammalian sperm tail are the outer dense fibers (Odfs) and the fibrous sheath. The Odfs are located on the outside of the axoneme and help maintain the passive elastic structures and elastic recoil of the sperm tail. Human Odfs consist of approximately 10 major and at least 15 minor proteins. The major proteins, including Odf1, Odf2 and Odf3, compose a family of proteins that are preferentially expressed during mammalian spermiogenesis. Odf2 is required for the formation of mother centriole distal/subdistal appendages and the generation of primary cilia. A member of the Odf2 family, Odf2L (outer dense fiber protein 2-like), also known as KIAA1229, is a 636 amino acid protein that exists as three isoforms produced by alternative splicing events. The gene encoding Odf2L maps to human chromosome 1p22.3 and mouse chromsome 3 H2.

## REFERENCES


1. Gastmann, O., Burfeind, P., Günther, E., Hameister, H., Szpirer, C. and Hoyer-Fender, S. 1993. Sequence, expression, and chromosomal assignment of a human sperm outer dense fiber gene. Mol. Reprod. Dev. 36: 407-418.
2. Shao, X. and van der Hoorn, F.A. 1996. Self-interaction of the major 27-kilodalton outer dense fiber protein is in part mediated by a leucine zipper domain in the rat. Biol. Reprod. 55: 1343-1350.
3. Shao, X., Murthy, S., Demetrick, D.J. and van der Hoorn, F.A. 1998. Human outer dense fiber gene, Odf2, localizes to chromosome 9q34. Cytogenet. Cell Genet. 83: 221-223.
4. Schalles, U., Shao, X., van der Hoorn, F.A. and Oko, R. 1998. Developmental expression of the 84-kDa ODF sperm protein: localization to both the cortex and medulla of outer dense fibers and to the connecting piece. Dev. Biol. 199: 250-260.
5. Petersen, C., Füzesi, L. and Hoyer-Fender, S. 1999. Outer dense fibre proteins from human sperm tail: molecular cloning and expression analyses of two cDNA transcripts encoding proteins of approximately 70 kDa. Mol. Hum. Reprod. 5: 627-635.
6. Shao, X., Xue, J. and van der Hoorn, F.A. 2001. Testicular protein Spag5 has similarity to mitotic spindle protein Deepest and binds outer dense fiber protein Odf1. Mol. Reprod. Dev. 59: 410-416.
7. Kierszenbaum, A.L. 2002. Keratins: unraveling the coordinated construction of scaffolds in spermatogenic cells. Mol. Reprod. Dev. 61: 1-2.
8. Donkor, F.F., Mönnich, M., Czirr, E., Hollemann, T. and Hoyer-Fender, S. 2004. Outer dense fibre protein 2 (Odf2) is a self-interacting centrosomal protein with affinity for microtubules. J. Cell Sci. 117: 4643-4651.
9. Ponsard, C., Seltzer, V., Perret, E., Tournier, F. and Middendorp, S. 2007. Identification of BCAP, a new protein associated with basal bodies and centrioles. Front. Biosci. 12: 3683-3693.


## PROTOCOLS

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

## CHROMOSOMAL LOCATION

Genetic locus: Odf2l (mouse) mapping to 3 H2.

## PRODUCT

Odf2L 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Odf2L shRNA Plasmid (m): sc-150177-SH and Odf2L shRNA (m) Lentiviral Particles: sc-150177-V as alternate gene silencing products.

For independent verification of Odf2L (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-150177A, sc-150177B and sc-150177C.

## 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

Odf2L siRNA (m) is recommended for the inhibition of Odf2L 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 Odf2L gene expression knockdown using RT-PCR Primer: Odf2L (m)-PR: sc-150177-PR (20 µl). 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.