SANTA CRUZ BIOTECHNOLOGY, INC.

FNDC3A siRNA (m): sc-72053

BACKGROUND

FNDC3A (fibronectin type III domain containing 3A), also known as HUGO (human gene expressed in odontoblasts), is a 1,134 amino acid protein that belongs to the FNDC3 family of proteins. FNDC3A contains an N-terminal proline-rich region, nine fibronectin type-III domains (none of which contain an RGD sequence) and a hydrophobic C-terminal transmembranous helix. Expressed in a wide variety of tissues, FNDC3A localizes to Golgi vesicles and to the developing acrosome of spermatids. FNDC3A is believed to function in glycosaminoglycan and collagen synthesis. In mice, a mutation in the gene encoding FNDC3A causes male sterility due to defective adhesion between Sertoli cells and spermatids in the seminiferous epithelium. This suggests that FNDC3A plays an important role in spermatogenesis, possibly mediating or maintaining the adhesion between Sertoli cells and spermatids.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Fndc3a (mouse) mapping to 14 D2.

PRODUCT

FNDC3A 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 FNDC3A shRNA Plasmid (m): sc-72053-SH and FNDC3A shRNA (m) Lentiviral Particles: sc-72053-V as alternate gene silencing products.

For independent verification of FNDC3A (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-72053A, sc-72053B and sc-72053C.

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

FNDC3A siRNA (m) is recommended for the inhibition of FNDC3A 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 FNDC3A gene expression knockdown using RT-PCR Primer: FNDC3A (m)-PR: sc-72053-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.

PROTOCOLS

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