

FAM12 siRNA (m): sc-145603

BACKGROUND

Testicular sperm are morphologically differentiated but are not progressively motile nor able to fertilize an egg. Post-testicular maturation requires exposure of spermatozoa to the microenvironment of the epididymal lumen. The proteins and enzymes that modify spermatozoa are synthesized by epithelial cells lining the epididymal duct and secreted apically into the lumen, where they come into contact with, and may be absorbed onto, the sperm membranes. FAM12, also known as Gm75 (gene model 75) or Eddm3b, is a 149 amino acid mouse protein. The human homolog of this protein, known as FAM12, EDDM3B (epididymal secretory protein E3- β) or HE3B (human epididymis-specific protein 3- β), is a 147 amino acid secreted protein that may play a role in sperm maturation. The genes encoding human and mouse FAM12 map to human chromosome 14q11.2 and mouse chromosome 14 C1, respectively.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Eddm3b (mouse) mapping to 14 C1.

PROTOCOLS

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

PRODUCT

FAM12 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see FAM12 shRNA Plasmid (m): sc-145603-SH and FAM12 shRNA (m) Lentiviral Particles: sc-145603-V as alternate gene silencing products.

For independent verification of FAM12 (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-145603A, sc-145603B and sc-145603C.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

FAM12 siRNA (m) is recommended for the inhibition of FAM12 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 μ M in 66 μ 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 FAM12 gene expression knockdown using RT-PCR Primer: FAM12 (m)-PR: sc-145603-PR (20 μ 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.