SANTA CRUZ BIOTECHNOLOGY, INC.

Spag11a siRNA (m): sc-153702

BACKGROUND

Spag11a (sperm-associated antigen 11a), also known as Bin1b or Ep2e, is a 71 amino acid secreted mouse protein that belongs to the β-defensin family and exists as three alternatively spliced isoforms. Acting as an antimicrobial peptide against E.coli, Spag11a is also responsible for sperm maturation, storage and protection. The gene that encodes Spag11a maps to mouse chromosome 8 A1.3. With about 132 million base pairs encoding more than 1,500 genes, chromosome 8 makes up approximately 5% of the mouse genome. There are a number of disease-associated genes that map to mouse chromosome 8, including a gene linked to colorectal cancer and a susceptibility gene for kidney disease.

REFERENCES

1. Ibrahim, N.M., et al. 2001. Epididymal specificity and androgen regulation of rat EP2. Biol. Reprod. 65: 575-580.
2. Yamaguchi, Y., et al. 2002. Identification of multiple novel epididymis-specific β-defensin isoforms in humans and mice. J. Immunol. 169: 2516-2523.
3. Patil, A.A., et al. 2005. Cross-species analysis of the mammalian β-defensin gene family: presence of syntenic gene clusters and preferential expression in the male reproductive tract. Physiol. Genomics 23: 5-17.
4. Amid, C., et al. 2009. Manual annotation and analysis of the defensin gene cluster in the C57BL/6J mouse reference genome. BMC Genomics 10: 606.
5. Harismendy, O., et al. 2009. Elucidating the role of 8q24 in colorectal cancer. Nat. Genet. 41: 868-869.
6. Rodrigues-Ferreira, S., et al. 2009. 8p22 MTUS1 gene product ATIP3 is a novel anti-mitotic protein underexpressed in invasive breast carcinoma of poor prognosis. PLoS ONE 4: e7239.
7. Chua, S., et al. 2010. A susceptibility gene for kidney disease in an obese mouse model of type II diabetes maps to chromosome 8. Kidney Int. 78: 453-462.

CHROMOSOMAL LOCATION

Genetic locus: Spag11a (mouse) mapping to 8 A1.3.

PRODUCT

Spag11a siRNA (m) is a target-specific 19-25 nt siRNA 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 Spag11a shRNA Plasmid (m): sc-153702-SH and Spag11a shRNA (m) Lentiviral Particles: sc-153702-V as alternate gene silencing products.

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.

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

Spag11a siRNA (m) is recommended for the inhibition of Spag11a 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.