SANTA CRUZ BIOTECHNOLOGY, INC.

Pecanex siRNA (m): sc-62772

BACKGROUND

Human Pecanex proteins are homologs of the *Drosophila* Pecanex protein, a maternal-effect neurogenic protein that is involved in normal development of the fly nervous system. There are three human Pecanex homologs, designated Pecanex (also known as PCNX or PCNXL1), Pecanex 2 (also known as PCNXL2) and PCNXL3. Pecanex is a 2,341 amino acid multi-pass membrane protein that is believed to play a regulatory role in the testis during spermatogenesis. Heavily expressed during meiotic prophase, Pecanex exists as three isoforms produced by alternative splicing events.

REFERENCES

1. Perrimon, N., Engstrom, L. and Mahowald, A.P. 1984. Developmental genetics of the 2E-F region of the *Drosophila* X chromosome: a region rich in "developmentally important" genes. Genetics 108: 559-572.
2. LaBonne, S.G. and Mahowald, A.P. 1985. Partial rescue of embryos from two maternal-effect neurogenic mutants by transplantation of wild-type ooplasm. Dev. Biol. 110: 264-267.
3. LaBonne, S.G., Sunitha, I. and Mahowald, A.P. 1989. Molecular genetics of Pecanex, a maternal-effect neurogenic locus of *Drosophila melanogaster* that potentially encodes a large transmembrane protein. Dev. Biol. 136: 1-16.
4. LaBonne, S.G. and Furst, A. 1989. Differentiation *in vitro* of neural precursor cells from normal and Pecanex mutant *Drosophila* embryos. J. Neurogenet. 5: 99-104.
5. Gilbert, T.L., Haldeman, B.A., Mulvihill, E. and O'Hara, P.J. 1992. A mammalian homologue of a transcript from the *Drosophila* Pecanex locus. J. Neurogenet. 8: 181-187.
6. Geisinger, A., Alsheimer, M., Baier, A., Benavente, R. and Wettstein, R. 2005. The mammalian gene Pecanex 1 is differentially expressed during spermatogenesis. Biochim. Biophys. Acta 1728: 34-43.

CHROMOSOMAL LOCATION

Genetic locus: Pcnx (mouse) mapping to 12 D1.

PRODUCT

Pecanex 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 Pecanex shRNA Plasmid (m): sc-62772-SH and Pecanex shRNA (m) Lentiviral Particles: sc-62772-V as alternate gene silencing products.

For independent verification of Pecanex (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-62772A, sc-62772B and sc-62772C.

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

Pecanex siRNA (m) is recommended for the inhibition of Pecanex 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 Pecanex gene expression knockdown using RT-PCR Primer: Pecanex (m)-PR: sc-62772-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.