SANTA CRUZ BIOTECHNOLOGY, INC.

PCDHA3 siRNA (m): sc-106376

BACKGROUND

Protocadherins are a large family of cadherin-like cell adhesion proteins that are involved in the establishment and maintenance of neuronal connections in the brain. There are three protocadherin (PCDH) gene clusters, designated α, β and γ, all of which contain multiple tandemly arranged genes. The protein products of PCDH-α genes interact with Integrin β1 to promote cell adhesion and form oligomers with PCDH-γ proteins at specific membrane sites. PCDHA3 (Protocadherin α-3) is a 950 amino acid single-pass transmembrane protein that contains six cadherin domains. PCDHA3 is a unique cadherin in that it likely functions in spermatogenesis and may also have a role in organizing germ cell-specific structures, such as the flagellum, acrosome and intercellular bridge. There are two isoforms of PCDHA13 that are produced as a result of alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Pcdha3 (mouse) mapping to 18 B2.

PROTOCOLS

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

PRODUCT

PCDHA3 siRNA (m) is a pool of 2 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 PCDHA3 shRNA Plasmid (m): sc-106376-SH and PCDHA3 shRNA (m) Lentiviral Particles: sc-106376-V as alternate gene silencing products.

For independent verification of PCDHA3 (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-106376A and sc-106376B.

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

PCDHA3 siRNA (m) is recommended for the inhibition of PCDHA3 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 PCDHA3 gene expression knockdown using RT-PCR Primer: PCDHA3 (m)-PR: sc-106376-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.