SANTA CRUZ BIOTECHNOLOGY, INC.

Pcdhga7 siRNA (m): sc-152094

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. PCDHGA7 (protocadherin γ-A7) is a 932 amino acid that is one of 22 proteins encoded by the protocadherin γ cluster. The protocadherein γ cluster consists of three subfamilies (A, B and C) and PCDHGA7 is a member of the γ subfamily A. PCDHGA7 is a type I transmembrane receptor containing six cadherin motifs and is expressed in the central nervous system where it localizes to synapses. Members of the γ cluster of protocadherins are essential for neuronal survival. There are two isoforms of PCDHGA7 that are produced as a result of alternative splicing events.

REFERENCES

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: Pcdhga7 (mouse) mapping to 18 B3.

PRODUCT

Pcdhga7 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 Pcdhga7 shRNA Plasmid (m): sc-152094-SH and Pcdhga7 shRNA (m) Lentiviral Particles: sc-152094-V as alternate gene silencing products.

For independent verification of Pcdhga7 (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-152094A, sc-152094B and sc-152094C.

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

Pcdhga7 siRNA (m) is recommended for the inhibition of Pcdhga7 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 Pcdhga7 gene expression knockdown using RT-PCR Primer: Pcdhga7 (m)-PR: sc-152094-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.