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SZABO-SCANDIC Handels GmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic)



Pcdhb7 siRNA (m): sc-152082

BACKGROUND

PCDHB7 (protocadherin β -7) is a 793 amino acid type I membrane protein that contains six cadherin domains. As a potential calcium-dependent cell-adhesion protein, PCDHB7 may be involved in the establishment and maintenance of specific neuronal connections in the brain. The gene that encodes PCDHB7 maps to human chromosome 5q31.3, and is a member of the protocadherin β gene cluster. This gene cluster is one of three related gene clusters tandemly linked on chromosome 5. It demonstrates an unusual genomic organization similar to that of B-cell and T-cell receptor gene clusters. Containing 16 genes and 3 pseudogenes, the β gene cluster encodes 6 extracellular cadherin domains and a cytoplasmic tail that deviates from others in the cadherin superfamily. The extracellular domains interact in a homophilic manner to specify differential cell-cell connections.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Pcdhb7 (mouse) mapping to 18 B3.

PROTOCOLS

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

PRODUCT

Pcdhb7 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 Pcdhb7 shRNA Plasmid (m): sc-152082-SH and Pcdhb7 shRNA (m) Lentiviral Particles: sc-152082-V as alternate gene silencing products.

For independent verification of Pcdhb7 (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-152082A, sc-152082B and sc-152082C.

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

Pcdhb7 siRNA (m) is recommended for the inhibition of Pcdhb7 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 Pcdhb7 gene expression knockdown using RT-PCR Primer: Pcdhb7 (m)-PR: sc-152082-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.