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SANTA CRUZ BIOTECHNOLOGY, INC.

PSD4 siRNA (m): sc-152539

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The ADP-ribosylation factor (ARF) protein family consists of structurally and functionally conserved members of the Ras superfamily of regulatory GTP-binding proteins. ARFs influence vesicle trafficking and signal transduction in eukaryotic cells. ARF6 mediates a variety of neuronal functions through its regulation of Actin cytoskeleton reorganization and membrane traffic. Activation of ARF6 is strictly regulated by guanine nucleotide exchage factors (GEFs), specifically the PH and SEC7 domain-containing protein (PSD) family. The PSD family of proteins consists of four members known as PSD1, PSD2, PSD3 and PSD4. PSD4 (pleckstrin and Sec7 domain containing 4), also known as TIC or EFA6B, is a 1,056 amino acid cell membrane protein that is widely expressed, with highest levels of expression found in placenta, pancreas, spleen, thymus and peripheral blood. Containing one PH domain and a SEC7 domain, PSD4 is a guanine nucleotide exchange factor for ARF6-like protein and is involved in membrane recycling.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Psd4 (mouse) mapping to 2 A3.

PRODUCT

PSD4 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 PSD4 shRNA Plasmid (m): sc-152539-SH and PSD4 shRNA (m) Lentiviral Particles: sc-152539-V as alternate gene silencing products.

For independent verification of PSD4 (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-152539A, sc-152539B and sc-152539C.

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

PSD4 siRNA (m) is recommended for the inhibition of PSD4 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 PSD4 gene expression knockdown using RT-PCR Primer: PSD4 (m)-PR: sc-152539-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.