SANTA CRUZ BIOTECHNOLOGY, INC.

FRMPD4 siRNA (m): sc-145248

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The Power to Question

BACKGROUND

FERM domains are roughly 150 amino acids in length and are found in a number of cytoskeletal-associated proteins such as Ezrin, Radixin, Moesin and 4.1 (erythrocyte membrane protein band 4.1), where they provide a link between cytoskeletal signals and membrane dynamics. FRMPD4 (FERM and PDZ domain-containing protein 4), also known as PDZD10 (PDZ domain-containing protein 10), PSD-95-interacting regulator of spine morphogenesis or KIAA0316, is a 1,322 amino acid protein containing one FERM domain, a PDZ (DHR) domain, and a WW domain. Localizing to cell projection and dendritic spine, FRMPD4 acts as a positive regulator of dendritic spine morphogenesis and density, and is required for excitatory synaptic transmission maintenance. The gene encoding FRMPD4 maps to human chromosome Xp22.2.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Frmpd4 (mouse) mapping to X F5.

PROTOCOLS

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

PRODUCT

FRMPD4 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 FRMPD4 shRNA Plasmid (m): sc-145248-SH and FRMPD4 shRNA (m) Lentiviral Particles: sc-145248-V as alternate gene silencing products.

For independent verification of FRMPD4 (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-145248A, sc-145248B and sc-145248C.

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

FRMPD4 siRNA (m) is recommended for the inhibition of FRMPD4 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 FRMPD4 gene expression knockdown using RT-PCR Primer: FRMPD4 (m)-PR: sc-145248-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.