SANTA CRUZ BIOTECHNOLOGY, INC.

Zizimin-1 siRNA (m): sc-76967

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Zizimin-1, also known as DOCK9 (dedicator of cytokinesis 9), is a 2,069 amino acid protein that localizes to the intracytoplasmic membrane and contains one PH domain, one DHR-1 domain and one DHR-2 domain. Expressed in a variety of tissues with highest expression in placenta and heart and lower expression in lung, kidney, brain and skeletal muscle, Zizimin-1 functions as a guanine nucleotide-exchange factor (GEF) that specifically activates Cdc42 by exchanging bound GDP for free GTP. Four isoforms of Zizimin-1 exist due to alternative splicing events. The gene encoding Zizimin-1 maps to human chromosome 13, which houses over 400 genes, such as BRCA2 and RB1, and comprises nearly 4% of the human genome. Trisomy 13, also known as Patau syndrome, is deadly and the few who survive past one year suffer from permanent neurologic defects, difficulty eating and vulnerability to serious respiratory infections.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Dock9 (mouse) mapping to 14 E5.

PROTOCOLS

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

PRODUCT

Zizimin-1 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 Zizimin-1 shRNA Plasmid (m): sc-76967-SH and Zizimin-1 shRNA (m) Lentiviral Particles: sc-76967-V as alternate gene silencing products.

For independent verification of Zizimin-1 (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-76967A, sc-76967B and sc-76967C.

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

Zizimin-1 siRNA (m) is recommended for the inhibition of Zizimin-1 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 Zizimin-1 gene expression knockdown using RT-PCR Primer: Zizimin-1 (m)-PR: sc-76967-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.