SANTA CRUZ BIOTECHNOLOGY, INC.

FNBP1 siRNA (m): sc-75049

BACKGROUND

FNBP1 (formin binding protein 1), also known as FBP17 or KIAA0554, is a 617 amino acid protein that localizes to a variety of locations within the cell, including the cytoplasm, cytoskeleton, lysosome and the cell cortex, and contains one FCH domain, one REM repeat and one SH3 domain. Expressed at high levels in respiratory, reproductive and urinary systems, as well as in brown adipose tissue and epithelial cells of the gastrointestinal tract, FNBP1 interacts with Rho 7 and links the Actin cytoskeleton with Rho 7 signaling, playing a crucial role in membrane tubulation and cytoskeletal reorganization during endocytosis. Additionally, FNBP1, which exists as four alternatively spliced isoforms, enhances Actin polymerization and promotes membrane invagination and the formation of tubules. Chromosomal aberrations in the FNBP1 gene are associated with acute leukemias, suggesting a role for defective FNBP1 in carcinogenesis.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Fnbp1 (mouse) mapping to 2 B.

PROTOCOLS

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

PRODUCT

FNBP1 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 FNBP1 shRNA Plasmid (m): sc-75049-SH and FNBP1 shRNA (m) Lentiviral Particles: sc-75049-V as alternate gene silencing products.

For independent verification of FNBP1 (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-75049A, sc-75049B and sc-75049C.

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

FNBP1 siRNA (m) is recommended for the inhibition of FNBP1 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.

GENE EXPRESSION MONITORING

FNBP1 (C-9): sc-515414 is recommended as a control antibody for monitoring of FNBP1 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor FNBP1 gene expression knockdown using RT-PCR Primer: FNBP1 (m)-PR: sc-75049-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.