SANTA CRUZ BIOTECHNOLOGY, INC.

FILIP siRNA (h): sc-95469

BACKGROUND

Development of the cortex (corticogenesis) is a highly complex and dynamic process, involving cellular migration to form the six layers of pyramidal neurons and interneurons. Migrating cells first extend a leading process, then the nucleus moves into the leading process and finally the cell retracts its trailing process. FILIP (Filamin-A-interacting protein 1) is a 1,213 amino acid protein that is likely involved in the Filamin A-mediated events of cellular migration. Filamin A is an actin-binding protein required for cell motility and interaction with FILIP induces degradation of filamen A. FILIP acts through a Filamin A-F-Actin axis to control the start of neocortical cell migration from the ventricular zone. Overexpression of FILIP in ventricular zone cells results in failure to migrate in explants. There are three isoforms of FILIP that are produced as a result of alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: FILIP1 (human) mapping to 6q14.1.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

FILIP siRNA (h) 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 FILIP shRNA Plasmid (h): sc-95469-SH and FILIP shRNA (h) Lentiviral Particles: sc-95469-V as alternate gene silencing products.

For independent verification of FILIP (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-95469A, sc-95469B and sc-95469C.

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

FILIP siRNA (h) is recommended for the inhibition of FILIP expression in human 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 FILIP gene expression knockdown using RT-PCR Primer: FILIP (h)-PR: sc-95469-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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