SANTA CRUZ BIOTECHNOLOGY, INC.

PLEKHH3 siRNA (h): sc-93935

BACKGROUND

PLEKHH3 (pleckstrin homology domain containing, family H (with MyTH4 domain) member 3) is a 793 amino acid phosphoprotein that contains one FERM domain, one MyTH4 domain and one pleckstrin homology (PH) domain, and exists as four alternatively spliced isoforms. The gene that encodes PLEKHH3 maps to human chromosome 17, which makes up over 2.5% of the human genome, with approximately 81 million bases encoding over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1. Malfunction or loss of p53 expression is associated with malignant cell growth and Li-Fraumeni syndrome. BRCA1 is recognized as a genetic determinant of early onset breast cancer. Chromosome 17 is also linked to neurofibromatosis, dysregulated Schwann cell growth, Alexander disease, Birt-Hogg-Dube syndrome and Canavan disease.

REFERENCES

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4. Farrell, C.J. and Plotkin, S.R. 2007. Genetic causes of brain tumors: neurofibromatosis, tuberous sclerosis, von Hippel-Lindau, and other syndromes. Neurol. Clin. 25: 925-946.
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8. Markou, T., et al. 2010. Regulation of the cardiomyocyte transcriptome vs translatome by endothelin-1 and Insulin: translational regulation of 5' terminal oligopyrimidine tract (TOP) mRNAs by Insulin. BMC Genomics 11: 343.
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CHROMOSOMAL LOCATION

Genetic locus: PLEKHH3 (human) mapping to 17q21.2.

PROTOCOLS

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

PRODUCT

PLEKHH3 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 PLEKHH3 shRNA Plasmid (h): sc-93935-SH and PLEKHH3 shRNA (h) Lentiviral Particles: sc-93935-V as alternate gene silencing products.

For independent verification of PLEKHH3 (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-93935A, sc-93935B and sc-93935C.

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

PLEKHH3 siRNA (h) is recommended for the inhibition of PLEKHH3 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 PLEKHH3 gene expression knockdown using RT-PCR Primer: PLEKHH3 (h)-PR: sc-93935-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.