SANTA CRUZ BIOTECHNOLOGY, INC.

PHYHIP siRNA (h): sc-77550

BACKGROUND

PHYHIP (phytanoyl-CoA hydroxylase-interacting protein) is a 330 amino acid protein that is strongly expressed in brain, with weak expression in ovary, small intestine and ovary. In transgenic mice, overexpression of PHYHIP in heart results in tachycardia and tachyarrhythmia. PHYHIP interacts with the Refsum disease gene product, PAHX, indicating that PHYHIP may play a role in the CNS deficits of Refsum disease, which is characterized by cerebellar degeneration, neurologic damage and peripheral neuropathies. PHYHIP also interacts with Dyrk1A, a protein that that is overexpressed in brain of Down-syndrome patients, therefore PHYHIP may participate in some of the neurological abnormalities of Down syndrome. Significantly, the gene encoding PHYHIP is localized to a region of the short arm of human chromosome 8 that is frequently found deleted in prostate, breast and several other types of cancers.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PHYHIP (human) mapping to 8p21.3.

RESEARCH USE

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

PRODUCT

PHYHIP 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 PHYHIP shRNA Plasmid (h): sc-77550-SH and PHYHIP shRNA (h) Lentiviral Particles: sc-77550-V as alternate gene silencing products.

For independent verification of PHYHIP (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-77550A, sc-77550B and sc-77550C.

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

PHYHIP siRNA (h) is recommended for the inhibition of PHYHIP 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 PHYHIP gene expression knockdown using RT-PCR Primer: PHYHIP (h)-PR: sc-77550-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.