

Produktinformation



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Diagnostik & molekulare Diagnostik
Laborgeräte & Service

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Zuschläge

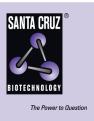
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SANTA CRUZ BIOTECHNOLOGY, INC.

PHYHIP siRNA (m): sc-152240



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 Downsyndrome 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 8p21.3 that is frequently found deleted in prostate, breast and several other types of cancers.

REFERENCES

- Nagase, T., et al. 1996. Prediction of the coding sequences of unidentified human genes. VI. The coding sequences of 80 new genes (KIAA0201-KIAA0280) deduced by analysis of cDNA clones from cell line KG-1 and brain. DNA Res. 3: 321-329, 341-354.
- 2. Lee, Z.H., et al. 2000. Identification of a brain specific protein that associates with a refsum disease gene product, phytanoyl-CoA α -hydroxylase. Brain Res. Mol. Brain Res. 75: 237-247.
- 3. Koh, J.T., et al. 2001. Characterization of mouse brain-specific angiogenesis inhibitor 1 (BAI1) and phytanoyl-CoA α -hydroxylase-associated protein 1, a novel BAI1-binding protein. Brain Res. Mol. Brain Res. 87: 223-237.
- Ahn, K.Y., et al. 2002. Postnatal expression and distribution of Refsum disease gene associated protein in the rat retina and visual cortex: effect of binocular visual deprivation. Int. J. Dev. Neurosci. 20: 93-102.
- Koh, J.T., et al. 2004. Changes underlying arrhythmia in the transgenic heart overexpressing Refsum disease gene-associated protein. Biochem. Biophys. Res. Commun. 313: 156-162.
- 6. Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 608511. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 7. Bescond, M. and Rahmani, Z. 2005. Dual-specificity tyrosine-phosphorylated and regulated kinase 1A (DYRK1A) interacts with the phytanoyl-CoA α -hydroxylase associated protein 1 (PAHX-AP1), a brain specific protein. Int. J. Biochem. Cell Biol. 37: 775-783.
- Kim, M.Y., et al. 2006. A repressor complex, AP4 transcription factor and geminin, negatively regulates expression of target genes in nonneuronal cells. Proc. Natl. Acad. Sci. USA 103: 13074-13079.
- 9. Yamamoto, F. and Yamamoto, M. 2008. Identification of genes that exhibit changes in expression on the 8p chromosomal arm by the systematic multiplex RT-PCR (SM RT-PCR) and DNA microarray hybridization methods. Gene Expr. 14: 217-227.

CHROMOSOMAL LOCATION

Genetic locus: Phyhip (mouse) mapping to 14 D2.

PRODUCT

PHYHIP 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PHYHIP shRNA Plasmid (m): sc-152240-SH and PHYHIP shRNA (m) Lentiviral Particles: sc-152240-V as alternate gene silencing products.

For independent verification of PHYHIP (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-152240A, sc-152240B and sc-152240C.

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 μ l of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNAse-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

PHYHIP siRNA (m) is recommended for the inhibition of PHYHIP 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 μ M in 66 μ l. 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 (m)-PR: sc-152240-PR (20 μ I). 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.

PROTOCOLS

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