SANTA CRUZ BIOTECHNOLOGY, INC.

FRYL siRNA (h): sc-88996

BACKGROUND

In yeast, flies, and worms, the Dbf2-related (Ndr) kinase protein family functions in various aspects of cell polarity and morphogenesis. The *Drosophila melanogaster* protein, furry, is responsible for maintaining integrity of polarized cell extensions, such as epidermal hair cells, lateral extensions of the arista and the shafts of neuronal sensory bristles. Mutations in furry lead to the formation of branched arista laterals, bristles and hairs. FRYL (protein furry homolog-like), also known as AF4P12 (ALL1-fused gene from chromosome 4p11 protein) or KIAA0826, is a 3,013 amino acid protein belonging to the furry protein family. Existing as two alternatively spliced isoforms, FRYL is widely expressed, with high levels found in colon, placenta, brain and cells of lymphoid origin. FRYL plays a role in the maintenance of polarized cell extension integrity during morphogenesis and may act as a transcriptional activator. FRYL also participates in the patterning of sensory neuron dendritic fields and may regulate the actin cytoskeleton.

REFERENCES

1. Kabani, M., et al. 2000. A highly representative two-hybrid genomic library for the yeast *Yarrowia lipolytica*. Gene 241: 309-315.
2. Cong, J., et al. 2001. The furry gene of *Drosophila* is important for maintaining the integrity of cellular extensions during morphogenesis. Development 128: 2793-2802.
3. Hirata, D., et al. 2002. Fission yeast Mor2/Cps12, a protein similar to *Drosophila* furry, is essential for cell morphogenesis and its mutation induces Wee1-dependent G_2 delay. EMBO J. 21: 4863-4874.
4. Emoto, K., et al. 2004. Control of dendritic branching and tiling by the Tricornered-kinase/furry signaling pathway in *Drosophila* sensory neurons. Cell 119: 245-256.
5. Hayette, S., et al. 2005. AF4p12, a human homologue to the furry gene of *Drosophila,* as a novel MLL fusion partner. Cancer Res. 65: 6521-6525.
6. He, Y., et al. 2005. The tricornered Ser/Thr protein kinase is regulated by phosphorylation and interacts with furry during *Drosophila* wing hair development. Mol. Biol. Cell 16: 689-700.

CHROMOSOMAL LOCATION

Genetic locus: FRYL (human) mapping to 4p11.

PRODUCT

FRYL 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 FRYL shRNA Plasmid (h): sc-88996-SH and FRYL shRNA (h) Lentiviral Particles: sc-88996-V as alternate gene silencing products.

For independent verification of FRYL (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-88996A, sc-88996B and sc-88996C.

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

FRYL siRNA (h) is recommended for the inhibition of FRYL 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 FRYL gene expression knockdown using RT-PCR Primer: FRYL (h)-PR: sc-88996-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.