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FRY siRNA (m): sc-145251

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. The yeast homolog of furry, Mor2, is important for the localization of F-Actin specifically at the cell ends and is required for the restriction of the growth zones. The mammalian homolog of the *Drosophila* furry protein is FRY, also known as C13orf14, a 3,013 amino acid protein that probably functions as a transcription factor for genes that regulate the Actin cytoskeleton. The gene encoding FRY maps to chromosome 13, which comprises nearly 4% of human DNA and contains around 114 million base pairs and 400 genes.

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: Fry (mouse) mapping to 5 G3.

PRODUCT

FRY siRNA (m) is a pool of 2 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 FRY shRNA Plasmid (m): sc-145251-SH and FRY shRNA (m) Lentiviral Particles: sc-145251-V as alternate gene silencing products.

For independent verification of FRY (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-145251A and sc-145251B.

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

FRY siRNA (m) is recommended for the inhibition of FRY 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 FRY gene expression knockdown using RT-PCR Primer: FRY (m)-PR: sc-145251-PR (20 μ l). 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.