



## KIFC2 siRNA (h): sc-60890

### BACKGROUND

The kinesin superfamily proteins (KIFs) are microtubule-dependent molecular motors that transport membranous organelles and protein complexes in a microtubule- and ATP-dependent manner. Cells use KIFs to tightly control the direction, destination, and speed of transportation of a variety of important functional molecules, including mRNA. KIFC2 is 792 amino acid member of the C-terminal motor family specifically expressed in both the central and peripheral nervous systems in nonproliferative cells. KIFC2 accumulates at the proximal and distal sides of axons and is a minus-end-directed kinesin. KIFC2 localizes with some, but not all, axonally transported organelles. KIFC2 may be involved in retrograde axonal transport.

### REFERENCES

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### CHROMOSOMAL LOCATION

Genetic locus: KIFC2 (human) mapping to 8q24.3.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

### PRODUCT

KIFC2 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see KIFC2 shRNA Plasmid (h): sc-60890-SH and KIFC2 shRNA (h) Lentiviral Particles: sc-60890-V as alternate gene silencing products.

For independent verification of KIFC2 (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-60890A, sc-60890B and sc-60890C.

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

### APPLICATIONS

KIFC2 siRNA (h) is recommended for the inhibition of KIFC2 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  $\mu$ M in 66  $\mu$ 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 KIFC2 gene expression knockdown using RT-PCR Primer: KIFC2 (h)-PR: sc-60890-PR (20  $\mu$ 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.