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# Sidekick-2 siRNA (m): sc-153460

## BACKGROUND

Sidekick-2 (SDK2), also known as KIAA1514, is a 2,172 amino acid single-pass type I membrane protein containing thirteen fibronectin type-III domains and six Ig-like C2-type (immunoglobulin-like) domains. Acting as a cell adhesion protein, Sidekick-2 guides axonal terminals to synapses in developing neurons. Sidekick-2 may require the interaction with MAGI scaffolding proteins for proper localization and function. Existing as four alternatively spliced isoforms, the gene encoding Sidekick-2 maps to human chromosome 17q25.1. Chromosome 17 makes up over 2.5% of the human genome with about 81 million bases encoding over 1,200 genes. Neurofibromatosis, a condition characterized by neural and epidermal lesions, and dysregulated Schwann cell growth have been linked to chromosome 17. Alexander disease, Birt-Hogg-Dube syndrome and Canavan disease are also associated with chromosome 17.

## REFERENCES

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3. Hayashi, K., Kaufman, L., Ross, M.D. and Klotman, P.E. 2005. Definition of the critical domains required for homophilic targeting of mouse sidekick molecules. *FASEB J.* 19: 614-616.
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## CHROMOSOMAL LOCATION

Genetic locus: Sdk2 (mouse) mapping to 11 E2.

## PROTOCOLS

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

## PRODUCT

Sidekick-2 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Sidekick-2 shRNA Plasmid (m): sc-153460-SH and Sidekick-2 shRNA (m) Lentiviral Particles: sc-153460-V as alternate gene silencing products.

For independent verification of Sidekick-2 (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-153460A, sc-153460B and sc-153460C.

## 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

Sidekick-2 siRNA (m) is recommended for the inhibition of Sidekick-2 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  $\mu$ 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 Sidekick-2 gene expression knockdown using RT-PCR Primer: Sidekick-2 (m)-PR: sc-153460-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.