



Hrk siRNA (m): sc-37304

BACKGROUND

Members of the Bcl-2 family of proteins interact to regulate programmed cell death, or apoptosis. Various homodimers and heterodimers formed by proteins in this family can either promote or inhibit apoptosis. Bcl-2 blocks cell death following a variety of stimuli and confers a death-sparing effect on certain hematopoietic cell lines following growth factor withdrawal. Additional apoptotic inhibitors in this family include Bcl-x, Bcl-w, Mcl-1, Bag-1 and A1. Pro-apoptotic members of this family include Bax, Bad, Bak, NBK (Bik), BID and Hrk. Hrk (for harakiri), designated DP5 or neuronal death protein in mouse and rat, contains a BH3 domain with high homology to other Bcl-2 family members but lacks the conserved BH1 and BH2 domains. Physical interaction of Hrk with Bcl-2 or Bcl-x_L inhibits the apoptotic activity of Hrk.

REFERENCES

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3. Oltvai, Z.N., et al. 1993. Bcl-2 heterodimerizes *in vivo* with a conserved homolog, Bax, that accelerates programmed cell death. *Cell* 74: 609-619.
4. Sato, T., et al. 1994. Interactions among members of the Bcl-2 protein family analyzed with a yeast two-hybrid system. *Proc. Natl. Acad. Sci. USA* 91: 9238-9242.
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7. Wang, K., et al. 1996. BID: a novel BH3 domain-only death agonist. *Genes Dev.* 10: 2859-2869.
8. Nagata, S. 1997. Apoptosis by death factor. *Cell* 88: 355-365.
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CHROMOSOMAL LOCATION

Genetic locus: Hrk (mouse) mapping to 5 F.

PRODUCT

Hrk 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 Hrk shRNA Plasmid (m): sc-37304-SH and Hrk shRNA (m) Lentiviral Particles: sc-37304-V as alternate gene silencing products.

For independent verification of Hrk (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-37304A, sc-37304B and sc-37304C.

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

Hrk siRNA (m) is recommended for the inhibition of Hrk 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 Hrk gene expression knockdown using RT-PCR Primer: Hrk (m)-PR: sc-37304-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.

PROTOCOLS

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