

Scratch2 siRNA (m): sc-153270

BACKGROUND

The snail family of developmental regulatory proteins is a group of widely conserved zinc-finger transcription factors that are involved in morphogenesis, cell division and cell survival. Scratch2, also known as SCRT2, is a 307 amino acid protein that contains five C₂H₂-type zinc fingers and belongs to the snail C₂H₂-type zinc-finger protein family. Localized to the nucleus, Scratch2 is thought to be involved in transcriptional regulation events, specifically functioning in the inner part of the cerebellar external granular layer, as well as in the postnatal cortical subventricular zone and in the glial cells of the adult vomeronasal nerve. The gene encoding Scratch2 maps to human chromosome 20p13, which houses over 600 genes and comprises nearly 2% of the human genome.

REFERENCES

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2. Hemavathy, K., et al. 2000. Snail/SLUG family of repressors: slowly going into the fast lane of development and cancer. *Gene* 257: 1-12.
3. Nakakura, E.K., et al. 2001. Mammalian scratch: a neural-specific snail family transcriptional repressor. *Proc. Natl. Acad. Sci. USA* 98: 4010-4015.
4. Nieto, M.A. 2002. The snail superfamily of zinc finger transcription factors. *Nat. Rev. Mol. Cell Biol.* 3: 155-166.
5. De Craene, B., et al. 2005. Unraveling signalling cascades for the snail family of transcription factors. *Cell. Signal.* 17: 535-547.
6. Marín, F. and Nieto, M.A. 2006. The expression of Scratch genes in the developing and adult brain. *Dev. Dyn.* 235: 2586-2591.
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CHROMOSOMAL LOCATION

Genetic locus: Scrt2 (mouse) mapping to 2 G3.

PRODUCT

Scratch2 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 Scratch2 shRNA Plasmid (m): sc-153270-SH and Scratch2 shRNA (m) Lentiviral Particles: sc-153270-V as alternate gene silencing products.

For independent verification of Scratch2 (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-153270A and sc-153270B.

PROTOCOLS

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

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

Scratch2 siRNA (m) is recommended for the inhibition of Scratch2 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 Scratch2 gene expression knockdown using RT-PCR Primer: Scratch2 (m)-PR: sc-153270-PR (20 μ l, 573 bp). 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.