



RECS1 siRNA (m): sc-152788

BACKGROUND

BI1 family is evolutionarily conserved as integral membrane proteins containing multiple membrane-spanning segments and predominantly localized to intracellular membranes, similar to Bcl-2 family proteins. They share multiple motifs and transcriptional factors within the promoter and the coding regions. They may represent regulators of cell death pathways, which are concluded from structure conservation of BI1 family. RECS1, also known as TMBIM1 (transmembrane BAX inhibitor motif containing 1), is a 311 amino acid multi-pass membrane protein that belongs to the BI1 family. It has been suggested that RECS1 is a negative regulator of aortic matrix metalloproteinase-9 (MMP-9) production and plays protective roles in vascular remodeling. The RECS1 gene is conserved in chimpanzee, canine, bovine, mouse, rat, chicken and zebrafish, and maps to human chromosome 2q35.

REFERENCES

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4. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 610364. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Zhou, J., Zhu, T., Hu, C., Li, H., Chen, G., Xu, G., Wang, S., Zhou, J. and Ma, D. 2008. Comparative genomics and function analysis on BI1 family. *Comput. Biol. Chem.* 32: 159-162.

CHROMOSOMAL LOCATION

Genetic locus: Tmbim1 (mouse) mapping to 1 C3.

PRODUCT

RECS1 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 RECS1 shRNA Plasmid (m): sc-152788-SH and RECS1 shRNA (m) Lentiviral Particles: sc-152788-V as alternate gene silencing products.

For independent verification of RECS1 (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-152788A, sc-152788B and sc-152788C.

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

RECS1 siRNA (m) is recommended for the inhibition of RECS1 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 RECS1 gene expression knockdown using RT-PCR Primer: RECS1 (m)-PR: sc-152788-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.