SANTA CRUZ BIOTECHNOLOGY, INC.

SCARA5 siRNA (h): sc-77423

BACKGROUND

SCARA5 (scavenger receptor class A member 5), also known as Tesr, is a 495 amino acid cell membrane protein. SCARA5 is expressed at high levels in testis, with highest levels specifically found in specific populations of epithelial cells and Sertoli cells. SCARA5 forms a homotrimer single-pass type II membrane complex present on the surface of the plasma membrane. Cells transfected with SCARA5 were able to bind particular gram-positive and gram-negative bacteria, suggesting a possible role for SCARA5 in immunity to infection. It has also been suggested that SCARA5 may be involved in transferrin delivery pathways. Expressed as four isoforms produced by alternative splicing, SCARA5 contains one collagen-like domain and one SRCR domain.

REFERENCES

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3. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 611306. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Troadec, M.B., Ward, D.M. and Kaplan, J. 2009. A Tf-independent iron transport system required for organogenesis. Dev. Cell 16: 3-4.
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CHROMOSOMAL LOCATION

Genetic locus: SCARA5 (human) mapping to 8p21.1.

PRODUCT

SCARA5 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see SCARA5 shRNA Plasmid (h): sc-77423-SH and SCARA5 shRNA (h) Lentiviral Particles: sc-77423-V as alternate gene silencing products.

For independent verification of SCARA5 (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-77423A, sc-77423B and sc-77423C.

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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

SCARA5 siRNA (h) is recommended for the inhibition of SCARA5 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 µM in 66 µl. 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 SCARA5 gene expression knockdown using RT-PCR Primer: SCARA5 (h)-PR: sc-77423-PR (20 µl). 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.