SANTA CRUZ BIOTECHNOLOGY, INC.

ROM1 siRNA (h): sc-96624

BACKGROUND

ROM1 (retinal outer segment membrane protein 1), also known as ROM, RP7, ROSP1 or TSPAN23, is a 351 amino acid integral membrane protein found in the photoreceptor disk rim of the eye. Belonging to the PRPH2/ROM1 family, ROM1 exists as a homodimer but can also form heterodimers with retinal degeneration slow (RDS). ROM1 is essential for disk morphogenesis and may also function as an adhesion molecule involved in the stabilization and compaction of outer segment disks or in the maintenance of the curvature of the rim. Certain defects in the gene encoding ROM1 have been associated with retinitis pigmentosa, a group of genetic eye conditions characterized by the progressive loss of photoreceptor cells that may potentially lead to blindness.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ROM1 (human) mapping to 11q12.3.

PROTOCOLS

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

PRODUCT

ROM1 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 ROM1 shRNA Plasmid (h): sc-96624-SH and ROM1 shRNA (h) Lentiviral Particles: sc-96624-V as alternate gene silencing products.

For independent verification of ROM1 (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-96624A, sc-96624B and sc-96624C.

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

ROM1 siRNA (h) is recommended for the inhibition of ROM1 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 ROM1 gene expression knockdown using RT-PCR Primer: ROM1 (h)-PR: sc-96624-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.