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SANTA CRUZ BIOTECHNOLOGY, INC.

MRGX1 siRNA (m): sc-149574

BACKGROUND

Mas-related G protein-coupled receptor member X1 (MRGX) is a sensory neuron-specific G protein-coupled receptor that is involved in the function of nociceptive neurons. This integral membrane protein may also regulate nociceptor development and/or the sensation or modulation of pain. There are four members (MRGX1-4) in the human MRGX family. MRGX1 and MRGX2 receptors stimulate both $G_{\alpha q}$- and $G_{\alpha i}$-regulated pathways, while MRGX3 and MRGX4 receptors mainly activate $G_{\alpha q}$-regulated pathways. $G_{\alpha q}$ proteins are involved in the calcium-signaling pathway downstream of the MRGX receptors. MRGX receptors are unique in that they are expressed in a subset of small dorsal root and trigeminal sensory neurons.

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CHROMOSOMAL LOCATION

Genetic locus: Mrgprx1 (mouse) mapping to 7 B4.

PRODUCT

MRGX1 siRNA (m) is a target-specific 19-25 nt siRNA 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 MRGX1 shRNA Plasmid (m): sc-149574-SH and MRGX1 shRNA (m) Lentiviral Particles: sc-149574-V as alternate gene silencing 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

MRGX1 siRNA (m) is recommended for the inhibition of MRGX1 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 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 MRGX1 gene expression knockdown using RT-PCR Primer: MRGX1 (m)-PR: sc-149574-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.

PROTOCOLS

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