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SANTA CRUZ BIOTECHNOLOGY, INC.

MrgB2 siRNA (m): sc-149563

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

MrgB2, also known as Mrgprb2 (Mas-related G protein-coupled receptor member B2), Mgrg14 or 4833406I20Rik, is a 338 amino acid multi-pass membrane protein that belongs to the G protein-coupled receptor 1 family. MrgB2 is the orthologue of the human G protein-coupled receptor MRGPRX2 and its expression is restricted to mast cells. MrgB2 is a receptor for a class of cationic substances responsible for non immunoglobulin IgE antibody allergic reactions in mast cells, collectively termed basic secretagogues. Basic secretagogues also include inflammatory peptides and drugs associated with allergic-type reactions. Activation of MrgB2 induces histamine release, inflammation and airway contraction. The Mrgprb2 gene is located on mouse chromosome 7 B4 and is conserved in human, chimpanzee, Rhesus monkey, and rat.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Mrgprb2 (mouse) mapping to 7 B4.

PRODUCT

MrgB2 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see MrgB2 shRNA Plasmid (m): sc-149563-SH and MrgB2 shRNA (m) Lentiviral Particles: sc-149563-V as alternate gene silencing products.

For independent verification of MrgB2 (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-149563A, sc-149563B and sc-149563C.

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

MrgB2 siRNA (m) is recommended for the inhibition of MrgB2 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 MrgB2 gene expression knockdown using RT-PCR Primer: MrgB2 (m)-PR: sc-149563-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.