SANTA CRUZ BIOTECHNOLOGY, INC.

SMR3B siRNA (h): sc-89089

BACKGROUND

Salivary glands are accessory digestive structures that also are sources of systemically active immunoregulatory and anti-inflammatory factors. The salivary glands participate in a neuroendocrine axis that is regulated by the autonomic nervous system and contributes to whole body homeostasis. Submaxillary gland androgen-regulated proteins are male-specific proteins that have a prohormone structure and are processed by maturation enzymes, leading to the release of small peptides within the blood and saliva. These peptides have analgesic and anti-inflammatory properties, and seem to be important in mediating inflammation, suppressing pain and erectile dysfunction. Submaxillary gland androgen-regulated protein 3A (SMR3A) and 3B (SMR3B), also known as proline-rich protein 5 and proline-rich protein 3 respectively, are secreted into the saliva by the submaxillary gland and may have a hormonal effect.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SMR3B (human) mapping to 4q13.3.

PRODUCT

SMR3B siRNA (h) is a pool of 2 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 SMR3B shRNA Plasmid (h): sc-89089-SH and SMR3B shRNA (h) Lentiviral Particles: sc-89089-V as alternate gene silencing products.

For independent verification of SMR3B (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-89089A and sc-89089B.

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

SMR3B siRNA (h) is recommended for the inhibition of SMR3B 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 SMR3B gene expression knockdown using RT-PCR Primer: SMR3B (h)-PR: sc-89089-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.