



smarp siRNA (m): sc-153619

BACKGROUND

Androgens exhibit a wide range of effects on the development, maintenance and regulation of male phenotype and male reproductive physiology. Composed of acinus and duct system, the submandibular gland (SMG) in rodents is a target for androgens. Smarp (submandibular androgen-repressed protein), also known as Gm5886 or EG545886, is a 165 amino acid murine secretory protein that shares significant homology with members of the rat glutamine/glutamic acid-rich protein (GRP) family. Produced by acinar cells of the SMG, rat GRPs are suggested to be secreted into saliva and may play a role in oral microorganism adhesion to tooth surfaces or affect calcium and phosphate solubility in saliva. Expression of smarp is thought to be downregulated in the SMG and upregulated in exorbital lacrimal gland (LG) by androgens. The gene encoding smarp is located on mouse chromosome 6 G1.

REFERENCES

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2. Barka, T. 1980. Biologically active polypeptides in submandibular glands. *J. Histochem. Cytochem.* 28: 836-859.
3. Mirels, L., Bedi, G.S., Dickinson, D.P., Gross, K.W. and Tabak, L.A. 1987. Molecular characterization of glutamic acid/glutamine-rich secretory proteins from rat submandibular glands. *J. Biol. Chem.* 262: 7289-7297.
4. Sabbadini, E. and Berczi, I. 1995. The submandibular gland: a key organ in the neuro-immuno-regulatory network? *Neuroimmunomodulation* 2: 184-202.
5. Señorale-Pose, M., Jacqueson, A., Rougeon, F. and Rosinski-Chupin, I. 1998. Acinar cells are target cells for androgens in mouse submandibular glands. *J. Histochem. Cytochem.* 46: 669-678.
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CHROMOSOMAL LOCATION

Genetic locus: Gm5886 (mouse) mapping to 6 G1.

PRODUCT

smarp 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see smarp shRNA Plasmid (m): sc-153619-SH and smarp shRNA (m) Lentiviral Particles: sc-153619-V as alternate gene silencing products.

For independent verification of smarp (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-153619A, sc-153619B and sc-153619C.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

smarp siRNA (m) is recommended for the inhibition of smarp 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 μ M in 66 μ l. 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 smarp gene expression knockdown using RT-PCR Primer: smarp (m)-PR: sc-153619-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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