SANTA CRUZ BIOTECHNOLOGY, INC.

STG siRNA (h): sc-95108

BACKGROUND

STG, also known as C6orf15 (chromosome 6 open reading frame 15), is a 325 amino acid protein that binds numerous extracellular matrix proteins and is expressed in taste buds, skin and tonsils. STG is a secreted protein that contains an N-terminal signal peptide, potential O-glycosylation sites and multiple tandem repeats. STG localizes to the extracellular matrix and likely plays a role in taste cell physiology. STG is encoded by a gene that maps to human chromosome 6p21.33, a region associated with lung cancer and follicular lymphoma susceptibility. Psoriasis-susceptibility region 1 (PSORS1) also maps to human chromosome 6p21, but STG is no longer a significantly associated with the development of psoriasis.

REFERENCES

1. Oka, A., et al. 1999. Association analysis using refined microsatellite markers localizes a susceptibility locus for psoriasis vulgaris within a 111 kb segment telomeric to the HLA-C gene. Hum. Mol. Genet. 8: 2165-2170.
2. Neira, M., et al. 2001. A new gene (rmSTG) specific for taste buds is found by laser capture microdissection. Mamm. Genome 12: 60-66.
3. Sánchez, F., et al. 2004. STG does not associate with psoriasis in the Swedish population. Exp. Dermatol. 13: 413-418.
4. Valdimarsson, H. 2007. The genetic basis of psoriasis. Clin. Dermatol. 25: 563-567.
5. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 611401. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
6. Wang, Y., et al. 2008. Common 5p15.33 and 6p21.33 variants influence lung cancer risk. Nat. Genet. 40: 1407-1409.
7. Skibola, C.F., et al. 2009. Genetic variants at 6p21.33 are associated with susceptibility to follicular lymphoma. Nat. Genet. 41: 873-875.

CHROMOSOMAL LOCATION

Genetic locus: C6orf15 (human) mapping to 6p21.33.

PRODUCT

STG 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 STG shRNA Plasmid (h): sc-95108-SH and STG shRNA (h) Lentiviral Particles: sc-95108-V as alternate gene silencing products.

For independent verification of STG (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-95108A, sc-95108B and sc-95108C.

PROTOCOLS

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

STG siRNA (h) is recommended for the inhibition of STG 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 STG gene expression knockdown using RT-PCR Primer: STG (h)-PR: sc-95108-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.