SANTA CRUZ BIOTECHNOLOGY, INC.

TMPRSS11A siRNA (h): sc-89126

BACKGROUND

TMPRSS11A (transmembrane protease serine 11A), also known as ECRG1 (esophageal cancer-susceptibility gene 1 protein), HATL1 (airway trypsin-like protease 1) or HESP (epidermal type-II transmembrane serine protease), is a 421 amino acid single-pass type II membrane protein that belongs to the peptidase S1 family and exists as two alternatively spliced isoforms. TMPRSS11A contains one peptidase S1 domain, one SEA domain and may interact with Miz-1. As a probable serine protease, TMPRSS11A may play a role in cellular senescence. Over-expression of TMPRSS11A inhibits cell growth and induces G_1 cell cycle arrest. While expressed in esophagus, liver, colon and lung, TMPRSS11A is down-regulated in esophageal cancers. The gene that encodes TMPRSS11A consists of approximately 54,756 bases and maps to human chromosome 4q13.2.

REFERENCES

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: TMPRSS11A (human) mapping to 4q13.2.

PRODUCT

TMPRSS11A 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 TMPRSS11A shRNA Plasmid (h): sc-89126-SH and TMPRSS11A shRNA (h) Lentiviral Particles: sc-89126-V as alternate gene silencing products.

For independent verification of TMPRSS11A (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-89126A, sc-89126B and sc-89126C.

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

TMPRSS11A siRNA (h) is recommended for the inhibition of TMPRSS11A 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 TMPRSS11A gene expression knockdown using RT-PCR Primer: TMPRSS11A (h)-PR: sc-89126-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.