

Mesotrypsinogen siRNA (h): sc-61020

BACKGROUND

Mesotrypsinogen is an isoform of human Trypsin, belonging to the Trypsin family of serine proteases. Mesotrypsinogen is known to be resistant to common Trypsin inhibitors such as SBTI and SPINK1, which may contribute to pathogenesis of pancreatitis by reducing the protective levels of SPINK1 in the pancreas. A minor pancreatic digestive enzyme that degrades dietary Trypsin inhibitors in the gut, Mesotrypsinogen may function to facilitate the digestion of foods rich in natural Trypsin inhibitors. Mesotrypsinogen migrates to the brain and pancreas and operates on peptide linkages involving the carboxyl group of lysine or Arginine. The gene encoding the Mesotrypsinogen protein maps to the locus of T cell receptor β variable orphans on chromosome 9.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PRSS3 (human) mapping to 9p13.3.

PRODUCT

Mesotrypsinogen siRNA (h) is a target-specific 19-25 nt siRNA 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 Mesotrypsinogen shRNA Plasmid (h): sc-61020-SH and Mesotrypsinogen shRNA (h) Lentiviral Particles: sc-61020-V as alternate gene silencing 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 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

Mesotrypsinogen siRNA (h) is recommended for the inhibition of Mesotrypsinogen 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 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 Mesotrypsinogen gene expression knockdown using RT-PCR Primer: Mesotrypsinogen (h)-PR: sc-61020-PR (20 μ l). 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.