

TATI siRNA (h): sc-45801

BACKGROUND

Tumor-associated Trypsin inhibitor (TATI), also designated pancreatic secretory trypsin inhibitor, contains one Kazal-like domain. It is a secreted trypsin inhibitor preventing trypsin-catalyzed premature activation of zymogens in the pancreas. The gene encoding for this 79 amino acid protein, named SPINK1, localizes to chromosome 5q32. Defects in this gene are the cause of chronic pancreatitis (CP), an autosomal dominant disease causing severe abdominal pain attacks. CP is characterized by calculi in pancreatic ducts. TATI can be found in the cyst fluid of cystic pancreatic lesion patients and is a potential marker for differentiating between the diagnosis of benign cystic pancreatic lesions and malignant cystic pancreatic lesions.

REFERENCES

1. Paju, A., Vartiainen, J., Haglund, C., Itkonen, O., von Boguslawski, K., Leminen, A., Wahlstrom, T. and Stenman, U.H. 2004. Expression of trypsinogen-1, trypsinogen-2, and tumor-associated trypsin inhibitor in ovarian cancer: prognostic study on tissue and serum. *Clin. Cancer Res.* 10: 4761-4768.
2. Raty, S., Sand, J., Alfthan, H., Haglund, C. and Nordback, I. 2004. Cyst fluid tumor-associated trypsin inhibitor may be helpful in the differentiation of cystic pancreatic lesions. *J. Gastrointest. Surg.* 8: 569-574.
3. Wiksten, J.P., Lundin, J., Nordling, S., Kokkola, A., Stenman, U.H. and Haglund, C. 2005. High tissue expression of tumour-associated trypsin inhibitor (TATI) associates with a more favourable prognosis in gastric cancer. *Histopathology* 46: 380-388.
4. SWISS-PROT/TrEMBL (P00995). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

CHROMOSOMAL LOCATION

Genetic locus: SPINK1 (human) mapping to 5q32.

PRODUCT

TATI 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TATI shRNA Plasmid (h): sc-45801-SH and TATI shRNA (h) Lentiviral Particles: sc-45801-V as alternate gene silencing products.

For independent verification of TATI (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-45801A, sc-45801B and sc-45801C.

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.

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

TATI siRNA (h) is recommended for the inhibition of TATI 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.

GENE EXPRESSION MONITORING

TATI (E-2): sc-374409 is recommended as a control antibody for monitoring of TATI gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.