SANTA CRUZ BIOTECHNOLOGY, INC.

ILEI siRNA (m): sc-105570

BACKGROUND

ILEI (interleukin-like Emt inducer), also known as FAM3C (family with sequence similarity 3, member C), is a 227 amino acid, ubiquitously expressed protein containing an amino-terminal signal peptide. Elevated levels of ILEI translation are observed in oncogenic, Ras-transformed mammary epithelial cells and epithelial to mesenchymal transition (Emt) as well as tumor growth and metastasis. Also, overexpression of ILEI results in loss of ZO-1, a protein involved in tight junctions, and expression of cytoplasmic E-cadherin, which has been shown to influence loss of polarity and invasiveness. Due to this evidence, it is suspected that ILEI cooperates with oncogenic Ras to cause TGFβ-independent Emt and its overexpression is correlated with the invasion, metastasis and survival in a variety of cancers.

REFERENCES

1. Zhu, Y., et al. 2002. Cloning, expression and initial characterization of a novel cytokine-like gene family. Genomics 80: 144-150.
2. Cao, X., et al. 2003. Pancreatic-derived factor (FAM3B), a novel islet cytokine, induces apoptosis of Insulin-secreting β-cells. Diabetes 52: 2296-2303.
3. Pilipenko, V.V., et al. 2004. Genomic organization and expression analysis of the murine FAM3C gene. Gene 335: 159-168.
4. Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 608618. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. Mauri, P., et al. 2005. Identification of proteins released by pancreatic cancer cells by multidimensional protein identification technology: a strategy for identification of novel cancer markers. FASEB J. 19: 1125-1127.
6. Guo, J., et al. 2006. GG: a domain involved in phage LTF apparatus and implicated in human MEB and non-syndromic hearing loss diseases. FEBS Lett. 580: 581-584.

CHROMOSOMAL LOCATION

Genetic locus: Fam3c (mouse) mapping to 6 A3.1.

PRODUCT

ILEI 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ILEI shRNA Plasmid (m): sc-105570-SH and ILEI shRNA (m) Lentiviral Particles: sc-105570-V as alternate gene silencing products.

For independent verification of ILEI (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-105570A, sc-105570B and sc-105570C.

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

ILEI siRNA (m) is recommended for the inhibition of ILEI 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 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 ILEI gene expression knockdown using RT-PCR Primer: ILEI (m)-PR: sc-105570-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.