SANTA CRUZ BIOTECHNOLOGY, INC.

SAMD9L siRNA (h): sc-89366

BACKGROUND

SAMD9L (sterile α motif domain containing 9-like), also known as UEF1, DRIF2 or C7orf6, is a 1,584 amino acid protein that contains one N-terminal sterile α motif (SAM) domain. Expressed in a variety of adult and fetal tissues, SAMD9L may be involved (via its SAM domain) in protein-protein interactions, playing a role in biological processes (such as developmental regulation) throughout the body. Orthologs of SAMDL9 are present in nearly all species with the exception of fish, chicken and frog, implying a conserved function in higher eukaryotes. SAMDL9 is present at variable levels in different tumor types, but is downregulated in breast cancer, suggesting a possible role for SAMD9L in tumor suppression. Two isoforms of SAMDL9 exist due to alternative splicing events.

REFERENCES

1. Peterson, A.J., et al. 1997. A domain shared by the Polycomb group proteins Scm and ph mediates heterotypic and homotypic interactions. Mol. Cell. Biol. 17: 6683-6692.
2. Schultz, J., et al. 1997. SAM as a protein interaction domain involved in developmental regulation. Protein Sci. 6: 249-253.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 611170. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Scherer, S.W., et al. 2003. Human chromosome 7: DNA sequence and biology. Science 300: 767-772.
5. Li, C.F., et al. 2007. Human sterile α motif domain 9, a novel gene identified as downregulated in aggressive fibromatosis, is absent in the mouse. BMC Genomics 8: 92.
6. Chefetz, I., et al. 2008. Normophosphatemic familial tumoral calcinosis is caused by deleterious mutations in SAMD9, encoding a TNFα responsive protein. J. Invest. Dermatol. 128: 1423-1429.

CHROMOSOMAL LOCATION

Genetic locus: SAMD9L (human) mapping to 7q21.2.

PRODUCT

SAMD9L 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 SAMD9L shRNA Plasmid (h): sc-89366-SH and SAMD9L shRNA (h) Lentiviral Particles: sc-89366-V as alternate gene silencing products.

For independent verification of SAMD9L (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-89366A, sc-89366B and sc-89366C.

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

SAMD9L siRNA (h) is recommended for the inhibition of SAMD9L 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 SAMD9L gene expression knockdown using RT-PCR Primer: SAMD9L (h)-PR: sc-89366-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.