SANTA CRUZ BIOTECHNOLOGY, INC.

ESAM siRNA (m): sc-77287

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

As a member of the immunoglobulin superfamily, ESAM (Endothelial cell-selective adhesion molecule) is a 390 amino acid junctional-type cellular adhesion protein that mediates homophilic reactions between endothelial cells. ESAM regulates endothelial permeability and angiogenesis and also participates in migration of neutrophils through the vessel wall by influencing endothelial cell contacts. After platelet activation, ESAM localizes to platelets in order to limit thrombus growth and stability, thereby optimizing the hemostatic response following vascular injury. This evidence suggests that ESAM may function as a mediator of atherosclerosis. Also, there is potential for ESAM to play a role in the regulation of tumor metastasis by promoting endothelial cell migration and tube formation in metastatic nodules.

REFERENCES

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: Esam (mouse) mapping to 9 A4.

PRODUCT

ESAM 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 ESAM shRNA Plasmid (m): sc-77287-SH and ESAM shRNA (m) Lentiviral Particles: sc-77287-V as alternate gene silencing products.

For independent verification of ESAM (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-77287A, sc-77287B and sc-77287C.

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

ESAM siRNA (m) is recommended for the inhibition of ESAM 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 ESAM gene expression knockdown using RT-PCR Primer: ESAM (m)-PR: sc-77287-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.