SANTA CRUZ BIOTECHNOLOGY, INC.

SCO-spondin siRNA (h): sc-89515

BACKGROUND

Thrombospondins are a family of glycoproteins that are involved in cell-to-cell and cell-to-matrix signaling. These extracellular, cell-surface proteins form complexes of both homo- and heteromultimers. Thrombospondins play a role in development, aggregation of platelets, adhesion and migration of cells and progression of cells through the growth cycle. SCO-spondin, also known as SSPO, is a 5,147 amino acid secreted protein that belongs to the thrombospondin family and plays a role in modulation of neuronal aggregation. Existing as two alternatively spliced isoforms, SCO-spondin participates in the development of the central nervous system and contains one CTCK (C-terminal cystine knot-like) domain, three VWFD domains, two EGF-like domains and three VWFC domains. Additionally, SCO-spondin has one EMI domain, a F5/8 type C domain, 10 LDL-receptor class A domains, 6 TIL (trypsin inhibitory-like) domains and 24 TSP type-1 domains.

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CHROMOSOMAL LOCATION

Genetic locus: SSPO (human) mapping to 7q36.1.

PRODUCT

SCO-spondin 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 SCO-spondin shRNA Plasmid (h): sc-89515-SH and SCO-spondin shRNA (h) Lentiviral Particles: sc-89515-V as alternate gene silencing products.

For independent verification of SCO-spondin (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-89515A, sc-89515B and sc-89515C.

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

SCO-spondin siRNA (h) is recommended for the inhibition of SCO-spondin 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 SCO-spondin gene expression knockdown using RT-PCR Primer: SCO-spondin (h)-PR: sc-89515-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.