SANTA CRUZ BIOTECHNOLOGY, INC.

Fli-1 siRNA (h): sc-35384

BACKGROUND

Ets-1 is the prototype member of a family of genes identified on the basis of homology to the v-Ets oncogene isolated from the E26 erythroblastosis virus. This family of genes currently includes Ets-1, Ets-2, Erg-1, Erg-2, Elk, E74, Fli-1, PU.1 and PEA3. Members of the Ets gene family exhibit varied patterns of tissue expression, and share a highly conserved carboxy terminal domain containing a sequence related to the SV40 large T antigen nuclear localization signal sequence. This conserved domain is essential for Ets-1 binding to DNA and is likely to be responsible for the DNA binding activity of all members of the Ets gene family. Several of these proteins have been shown to recognize similar motifs in DNA that share a centrally located 5'-GGAA-3' element.

CHROMOSOMAL LOCATION

Genetic locus: FLI1 (human) mapping to 11q24.3.

PRODUCT

Fli-1 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 Fli-1 shRNA Plasmid (h): sc-35384-SH and Fli-1 shRNA (h) Lentiviral Particles: sc-35384-V as alternate gene silencing products.

For independent verification of Fli-1 (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-35384A, sc-35384B and sc-35384C.

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

Fli-1 siRNA (h) is recommended for the inhibition of Fli-1 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.

GENE EXPRESSION MONITORING

Fli-1 (F-12): sc-365294 is recommended as a control antibody for monitoring of Fli-1 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).

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Fli-1 gene expression knockdown using RT-PCR Primer: Fli-1 (h)-PR: sc-35384-PR (20 µl, 527 bp). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

SELECT PRODUCT CITATIONS

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4. Yamaguchi, R., et al. 2018. Transcription factor specificity protein 1 modulates TGFβ1/Smad signaling to negatively regulate SIGIRR expression by human M1 macrophages stimulated with Substance P. Cytokine 108: 24-36.
5. Miyagawa, T., et al. 2018. Progranulin overproduction due to constitutively activated c-Abl/PKC-δ/Fli-1 pathway contributes to the resistance of dermal fibroblasts to the anti-fibrotic effect of tumor necrosis factor-α in localized scleroderma. J. Dermatol. Sci. 92: 207-214.
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7. Yamaguchi, R., et al. 2020. TRIM28/TIF1β and Fli-1 negatively regulate peroxynitrite generation via DUOX2 to decrease the shedding of membrane-bound fractalkine in human macrophages after exposure to cubstance P. Cytokine 134: 155180.
8. Ikawa, T., et al. 2021. Endothelial CCR6 expression due to FLI1 deficiency contributes to vasculopathy associated with systemic sclerosis. Arthritis Res. Ther. 23: 283.
9. Fukui, Y., et al. 2021. Serum vasohibin-1 levels: a potential marker of dermal and pulmonary fibrosis in systemic sclerosis. Exp. Dermatol. 30: 951-958.
10. Agalakova, N.I., et al. 2022. Silencing of Fli1 gene mimics effects of pre-eclampsia and induces collagen synthesis in human umbilical arteries. Am. J. Hypertens. 35: 828-832.

RESEARCH USE

For research use only, not for use in diagnostic procedures.