# SANTA CRUZ BIOTECHNOLOGY, INC.

# Elk-1 siRNA (h): sc-35290



#### 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-1–3, Elk-1, Elf-1, Elf-5, NERF, PU.1, PEA3, ERM, FEV, ER8I, Fli-1, TEL, Spi-B, ESE-1, ESE-3A, Net, ABT1 and ERF. 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: ELK1 (human) mapping to Xp11.23.

## PRODUCT

Elk-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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Elk-1 shRNA Plasmid (h): sc-35290-SH and Elk-1 shRNA (h) Lentiviral Particles: sc-35290-V as alternate gene silencing products.

For independent verification of Elk-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-35290A, sc-35290B and sc-35290C.

#### 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  $\mu$ l of the RNAse-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNAse-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

#### **APPLICATIONS**

Elk-1 siRNA (h) is recommended for the inhibition of Elk-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  $\mu$ M in 66  $\mu$ l. 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**

Elk-1 (E-5): sc-365876 is recommended as a control antibody for monitoring of Elk-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 Elk-1 gene expression knockdown using RT-PCR Primer: Elk-1 (h)-PR: sc-35290-PR (20  $\mu$ l, 490 bp). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

#### DATA



Elk-1 siRNA (h): sc-35290. Western blot analysis of Elk-1 expression in non-transfected control (**A**) and Elk-1 siRNA transfected (**B**) HeLa cells. Blot probed with Elk-1 (l-20): sc-356. Actin (l-19): sc-1616 used as specificity and loading control.

#### SELECT PRODUCT CITATIONS

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## **RESEARCH USE**

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