SANTA CRUZ BIOTECHNOLOGY, INC.

SRE-ZBP siRNA (m): sc-38363

BACKGROUND

The best studied of the immediate early genes is the c-Fos proto-oncogene. Many of the signals inducing Fos expression act through a sequence located in the 5' flanking region of c-Fos, designated the serum response element (SRE). The SRE is required for response to activators of protein kinase C and Fos growth-induced signals independent of protein kinase C. Accumulating evidence argues that the SRE is a multifunctional element that may involve the action of multiple SRE-binding proteins. These include the serum response factor (SRF) and the two less well characterized proteins, TCF p62 and BBF p62. An SRE binding nuclear protein, designated SRE-ZBP, is a member of the C_2H_2 zinc finger family of proteins. Like c-Fos, SRE-ZBP is serum-inducible in HeLa cells, although with slower kinetics.

REFERENCES

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2. Gilman, M.Z. 1988. The c-Fos serum response element responds to protein kinase C-dependent and -independent signals but not to cyclic AMP. Genes Dev. 2: 394-402.
3. Sassonee-Corsi, P., Sisson, J.C. and Verma, I.M. 1988. Transcriptional regulation of the c-Fos proto-oncogene. Nature 334: 314-319.
4. Norman, C., Runswick, M., Pollock, R. and Treisman, R. 1988. Isolation and properties of cDNA clones encoding SRF, a transcription factor that binds to the c-Fos serum response element. Cell 55: 989-1003.
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6. Shaw, P.E., Frasch, S. and Nordheim, A. 1989. Repression of c-Fos transcription is mediated through p67SRF bound to the SRE. EMBO J. 8: 2567-2574.
7. Shaw, P.E., Schroter, H. and Nordheim, A. 1989. The ability of a ternary complex to form over the serum response element correlates with serum inducibility of the human c-fos promoter. Cell 56: 563-572.
8. Graham, R. and Gilman, M. 1991. Distinct protein targets for signal acting at the c-Fos serum response element. Science 251: 189-192.
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CHROMOSOMAL LOCATION

Genetic locus: Zfp187 (mouse) mapping to 13 A3.1.

PROTOCOLS

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

PRODUCT

SRE-ZBP 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 SRE-ZBP shRNA Plasmid (m): sc-38363-SH and SRE-ZBP shRNA (m) Lentiviral Particles: sc-38363-V as alternate gene silencing products.

For independent verification of SRE-ZBP (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-38363A, sc-38363B and sc-38363C.

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

SRE-ZBP siRNA (m) is recommended for the inhibition of SRE-ZBP 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 SRE-ZBP gene expression knockdown using RT-PCR Primer: SRE-ZBP (m)-PR: sc-38363-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.