

TCEAL2 siRNA (h): sc-91172

BACKGROUND

Members of the TFS-II family contain TFA domains and are suggested to function as nuclear phosphoproteins that modulate transcription in a promoter context-dependent manner. TCEAL proteins are known to play significant roles as tumor suppressors to transcriptional regulators. TCEAL2 (transcription elongation factor A (SII)-like 2), also known as my048 or MY0876G05, is a 277 amino acid nuclear protein belonging to the TFS-II family. Considered a transcriptional regulator, TCEAL2 is encoded by a gene located on human chromosome X. Human chromosome X contains nearly 153 million base pairs and houses over 1,000 genes. In conjunction with chromosome Y, chromosome X is responsible for sex determination, as an X and a Y chromosome lead to normal male development, while two copies of an X chromosome lead to normal female development. There are a number of conditions related to an abnormal number and combination of sex chromosomes, some of which include Turner's syndrome, color blindness, hemophilia and Duchenne muscular dystrophy.

REFERENCES

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5. Chien, J., et al. 2005. Epigenetic silencing of TCEAL7 (Bex4) in ovarian cancer. *Oncogene* 24: 5089-5100.
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CHROMOSOMAL LOCATION

Genetic locus: TCEAL2 (human) mapping to Xq22.1.

PROTOCOLS

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

PRODUCT

TCEAL2 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TCEAL2 shRNA Plasmid (h): sc-91172-SH and TCEAL2 shRNA (h) Lentiviral Particles: sc-91172-V as alternate gene silencing products.

For independent verification of TCEAL2 (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-91172A, sc-91172B and sc-91172C.

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

APPLICATIONS

TCEAL2 siRNA (h) is recommended for the inhibition of TCEAL2 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 μ M in 66 μ 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor TCEAL2 gene expression knockdown using RT-PCR Primer: TCEAL2 (h)-PR: sc-91172-PR (20 μ l). 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.