SANTA CRUZ BIOTECHNOLOGY, INC.

TBX19 siRNA (h): sc-38481

BACKGROUND

The T-box (Tbx) motif is present in a family of genes whose structural features and expression patterns support their involvement in developmental gene regulation. The TBX gene family encode for putative transcription factors that share a uniquely defining DNA-binding domain and are implicated in a variety of developmental processes, ranging from the formation of germ layers to the organizational patterning of the central nervous system. TBX genes encode a family of developmental regulators with more than 20 members recently identified in invertebrates and vertebrates, one of which is TBX19, a 448 amino acid nuclear protein. Our understanding of functional mechanisms of TBX proteins has come mainly from the prototypical T/Brachyury, which is a transcriptional activator. Mutations in TBX genes are associated with the onset of several human diseases.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: TBX19 (human) mapping to 1q24.2.

RESEARCH USE

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

PROTOCOLS

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

PRODUCT

TBX19 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 TBX19 shRNA Plasmid (h): sc-38481-SH and TBX19 shRNA (h) Lentiviral Particles: sc-38481-V as alternate gene silencing products.

For independent verification of TBX19 (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-38481A, sc-38481B and sc-38481C.

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

TBX19 siRNA (h) is recommended for the inhibition of TBX19 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 TBX19 gene expression knockdown using RT-PCR Primer: TBX19 (h)-PR: sc-38481-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.