SANTA CRUZ BIOTECHNOLOGY, INC.

TEF siRNA (h): sc-106607

BACKGROUND

TEF (thyrotrophic embryonic factor), also known as KIAA1655, is a 303 amino acid nuclear transcription factor that belongs to the bZIP (basic region/leucine zipper) family and PAR (proline and acidic amino acid-rich) subfamily. TEF binds DNA as either a homodimer or heterodimer, and is known to transactivate the TSHβ promoter. While broadly expressed in adults, TEF is only found in developing embryonic anterior pituitary gland. TEF accumulates according to a robust circadian rhythm and has also been found to inhibit cell growth by down-regulating beta chain expression of cytokine receptors. The functional domains of TEF are highly homologous with other members of the PAR-bZIP subfamily, including albumin D box-binding protein (DABP), human hepatic leukemia factor (HLF) and chicken vitellogenin gene-binding protein (VBP). The gene encoding TEF maps to human chromosome 22q13.2.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: TEF (human) mapping to 22q13.2.

PROTOCOLS

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

PRODUCT

TEF 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 TEF shRNA Plasmid (h): sc-106607-SH and TEF shRNA (h) Lentiviral Particles: sc-106607-V as alternate gene silencing products.

For independent verification of TEF (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-106607A, sc-106607B and sc-106607C.

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

TEF siRNA (h) is recommended for the inhibition of TEF 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 TEF gene expression knockdown using RT-PCR Primer: TEF (h)-PR: sc-106607-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.