

TEF-5 siRNA (m): sc-154180

BACKGROUND

The transcriptional enhancer factor (TEF)/TEAD family of proteins includes TEF-1, TEF-3, TEF-4 and TEF-5, all of which share a highly conserved 68 amino acid TEA/ATTS DNA-binding domain. TEF-5 (transcriptional enhancer factor-5), also known as TEAD3, TEAD5, DTEF-1 or ETRF-1, is a 435 amino acid nuclear protein that contains one TEA DNA-binding domain and belongs to the TEF transcriptional enhancer family. Expressed predominately in placental tissue and skeletal muscle, TEF-5 binds to multiple sites in the promoter of Placental lactogen II (also known as chorionic somatomammotropin-B) and, via this binding, enhances Placental lactogen II transcription. Due to its ability to enhance the expression of placenta-related genes, TEF-5 is thought to function as an important regulatory protein within the human placenta.

REFERENCES

1. Yasunami, M., et al. 1996. A novel family of TEA domain-containing transcription factors with distinct spatiotemporal expression patterns. *Biochem. Biophys. Res. Commun.* 228: 365-370.
2. Azakie, A., et al. 1996. DTEF-1, a novel member of the transcription enhancer factor-1 (TEF-1) multigene family. *J. Biol. Chem.* 271: 8260-8265.
3. Jacquemin, P., et al. 1997. Human TEF-5 is preferentially expressed in placenta and binds to multiple functional elements of the human chorionic somatomammotropin-B gene enhancer. *J. Biol. Chem.* 272: 12928-12937.
4. Jacquemin, P., et al. 1998. Differential expression of the TEF family of transcription factors in the murine placenta and during differentiation of primary human trophoblasts *in vitro*. *Dev. Dyn.* 212: 423-436.
5. Jiang, S.W., et al. 1999. Human placental TEF-5 transactivates the human chorionic somatomammotropin gene enhancer. *Mol. Endocrinol.* 13: 879-889.

CHROMOSOMAL LOCATION

Genetic locus: Tead3 (mouse) mapping to 17 A3.3.

PRODUCT

TEF-5 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TEF-5 shRNA Plasmid (m): sc-154180-SH and TEF-5 shRNA (m) Lentiviral Particles: sc-154180-V as alternate gene silencing products.

For independent verification of TEF-5 (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-154180A, sc-154180B and sc-154180C.

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.

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

TEF-5 siRNA (m) is recommended for the inhibition of TEF-5 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 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 TEF-5 gene expression knockdown using RT-PCR Primer: TEF-5 (m)-PR: sc-154180-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.