

RTF1 siRNA (m): sc-153165

BACKGROUND

RTF1 (RNA polymerase-associated protein RTF1 homolog) is a 710 amino acid nuclear protein that is involved in transcription-coupled histone modification and induction of heat-shock genes. RTF1 also plays a role in transcription regulation and is thought to interact with both the Paf1 and RNA polymerase II complexes. Containing one Plus3 domain, which is utilized for modulating single-stranded DNA-binding, RTF1 is encoded by a gene that maps to human chromosome 15q15.1 and mouse chromosome 2 E5. Chromosome 15 houses over 700 genes and comprises nearly 3% of the human genome. Angelman syndrome, Prader-Willi syndrome, Tay-Sachs disease and Marfan syndrome are all associated with defects in chromosome 15-localized genes.

REFERENCES

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3. Midla, G.S. 2008. Diagnosis and management of patients with Marfan syndrome. *JAAPA* 21: 21-25.
4. de Jong, R.N., et al. 2008. Structure and DNA binding of the human Rtf1 Plus3 domain. *Structure* 16: 149-159.
5. Dan, B. 2009. Angelman syndrome: current understanding and research prospects. *Epilepsia* 50: 2331-2339.
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CHROMOSOMAL LOCATION

Genetic locus: Rtf1 (mouse) mapping to 2 E5.

PRODUCT

RTF1 siRNA (m) is a target-specific 19-25 nt siRNA 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 RTF1 shRNA Plasmid (m): sc-153165-SH and RTF1 shRNA (m) Lentiviral Particles: sc-153165-V as alternate gene silencing products.

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

RTF1 siRNA (m) is recommended for the inhibition of RTF1 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 RTF1 gene expression knockdown using RT-PCR Primer: RTF1 (m)-PR: sc-153165-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.