SANTA CRUZ BIOTECHNOLOGY, INC.

TWA1 siRNA (h): sc-76778

BACKGROUND

TWA1 (two hybrid-associated protein 1 with Ran BP-M), also known as protein C20orf11, is a 228 amino acid nuclear protein that is highly conserved throughout evolution. TWA1 interacts with Ran BP-M, a protein that is implicated in a diverse array of cellular processes including DNA replication, entry into and exit from mitosis, and the transport of RNA and proteins through the nuclear pore complex. Together, Ran BP-M and TWA1 form a complex with cytoplasmic Muskelin, a mediator of cell spreading. It is thought that this complex plays a role in the Ran GTPase cycle and therefore a potential role in the cell cycle. TWA1 contains a LisH-CTLH motif which is usually found in proteins that are involved in nucleokinesis, chromosome segregation, cell migration and microtubule dynamics. The gene encoding TWA1 maps to human chromosome 20, which comprises approximately 2% of the human genome and contains nearly 63 million bases that encode over 600 genes.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: C20orf11 (human) mapping to 20q13.33.

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

TWA1 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 TWA1 shRNA Plasmid (h): sc-76778-SH and TWA1 shRNA (h) Lentiviral Particles: sc-76778-V as alternate gene silencing products.

For independent verification of TWA1 (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-76778A, sc-76778B and sc-76778C.

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

TWA1 siRNA (h) is recommended for the inhibition of TWA1 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 TWA1 gene expression knockdown using RT-PCR Primer: TWA1 (h)-PR: sc-76778-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.