SANTA CRUZ BIOTECHNOLOGY, INC.

TTC28 siRNA (h): sc-106647

BACKGROUND

TTC28 (tetratricopeptide repeat domain 28), also known as tetratricopeptide (TPR) repeat protein 28, is a 2,481 amino acid binding protein that contains 28 TPR repeats. TTC28 encodes hypothetical proteins of unknown function in both human and chimpanzee. Encoded by a gene that maps to human chromosome 22q12.1, the gene structure of TTC28 is unascertained. As the second smallest human chromosome, chromosome 22 contains over 500 genes and about 49 million bases. Phelan-McDermid syndrome, Neurofibromatosis type 2 and autism are associated with chromosome 22. A schizophrenia susceptibility locus has been identified on chromosome 22 and studies show that 22q11 deletion symptoms include a high incidence of schizophrenia. Translocations between chromosomes 9 and 22 may lead to the formation of the Philadelphia chromosome and the subsequent production of the novel fusion protein, Bcr-Abl, a potent cell proliferation activator found in several types of leukemia.

REFERENCES

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6. Schmegner, C., Hoegel, J., Vogel, W. and Assum, G. 2007. A comparison of the variability spectra of two genomic loci in a European group of individuals reveals fundamental differences pointing to selection or a population bottleneck. Ann. Hum. Genet. 71: 370-378.

CHROMOSOMAL LOCATION

Genetic locus: TTC28 (human) mapping to 22q12.1.

PRODUCT

TTC28 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 TTC28 shRNA Plasmid (h): sc-106647-SH and TTC28 shRNA (h) Lentiviral Particles: sc-106647-V as alternate gene silencing products.

For independent verification of TTC28 (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-106647A, sc-106647B and sc-106647C.

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

TTC28 siRNA (h) is recommended for the inhibition of TTC28 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 TTC28 gene expression knockdown using RT-PCR Primer: TTC28 (h)-PR: sc-106647-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.

PROTOCOLS

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