SANTA CRUZ BIOTECHNOLOGY, INC.

TTC7B siRNA (h): sc-92451

BACKGROUND

The tetratricopeptide repeat (TPR) motif is a degenerate, 34 amino acid sequence found in many proteins that acts to mediate protein-protein interactions in various pathways. At the sequence level, there can be up to 16 tandem TPR repeats, each of which has a helix-turn-helix shape that stacks on other TPR repeats to achieve ligand binding specificity. TTC7B (tetratricopeptide repeat domain 7B), also known as TTC7L1 (tetratricopeptide repeat protein 7-like-1) or c14_5685, is a 741 amino acid protein that contains eleven tetratricopeptide repeats. Two isoforms of TTC7B are expressed due to alternative splicing events.

REFERENCES

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2. Demonacos, C., Krstic-Demonacos, M. and La Thangue, N.B. 2001. A TPR motif cofactor contributes to p300 activity in the p53 response. Mol. Cell 8: 71-84.
3. Cortajarena, A.L., Kajander, T., Pan, W., Cocco, M.J. and Regan, L. 2004. Protein design to understand peptide ligand recognition by tetratricopeptide repeat proteins. Protein Eng. Des. Sel. 17: 399-409.
4. Flower, T.R., Clark-Dixon, C., Metoyer, C., Yang, H., Shi, R., Zhang, Z. and Witt, S.N. 2007. YGR198w (YPP1) targets A30P α-synuclein to the vacuole for degradation. J. Cell Biol. 177: 1091-1104.
5. Jarymowycz, V.A., Cortajarena, A.L., Regan, L. and Stone, M.J. 2008. Comparison of the backbone dynamics of a natural and a consensus designed 3-TPR domain. J. Biomol. NMR 41: 169-178.

CHROMOSOMAL LOCATION

Genetic locus: TTC7B (human) mapping to 14q32.11.

PRODUCT

TTC7B 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 TTC7B shRNA Plasmid (h): sc-92451-SH and TTC7B shRNA (h) Lentiviral Particles: sc-92451-V as alternate gene silencing products.

For independent verification of TTC7B (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-92451A, sc-92451B and sc-92451C.

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 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

TTC7B siRNA (h) is recommended for the inhibition of TTC7B 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 TTC7B gene expression knockdown using RT-PCR Primer: TTC7B (h)-PR: sc-92451-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.