SANTA CRUZ BIOTECHNOLOGY, INC.

TULP4 siRNA (h): sc-95442

BACKGROUND

Tubby-related protein 4 (TULP4) is a 1,543 amino acid protein belonging to the TUB family. Localized to the cytoplasm, TULP4 is thought to be a substrate-recognition component of the Elongin-Cullin-SOCS-box protein E3 ubiquitin ligase complex (elongin B/C complex), which mediates the ubiquitination and subsequent degradation of target proteins. TULP4 contains three WD repeats and one SOCS box domain. The SOCS box domain includes a C-terminal Leu/Pro-rich conserved sequence and a conserved N-terminal region called a BC box. It is through the BC box that the SOCS box domain binds to the elongin B/C complex. Expressed predominantly in brain, skeletal muscle, testis and kidney, two named isoforms of TULP4 exist as a result of alternative splicing events.

REFERENCES

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3. Ikeda, A., et al. 2002. The tubby-like proteins, a family with roles in neuronal development and function. J. Cell Sci. 115: 9-14.
4. Ronshaugen, M., et al. 2002. Structure and expression patterns of *Drosophila* TULP and TUSP, members of the tubby-like gene family. Mech. Dev. 117: 209-215.
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6. Hard, M.L., et al. 2005. Gene-expression analysis after alcohol exposure in the developing mouse. J. Lab. Clin. Med. 145 47-54.
7. Choi, D.W., et al. 2008. Ubiquitination and degradation of homeodomain-interacting protein kinase 2 by WD40 repeat/SOCS box protein WSB-1. J. Biol. Chem. 283: 4682-4689.
8. Babon, J.J., et al. 2008. The SOCS box domain of SOCS3: structure and interaction with the elonginBC-cullin5 ubiquitin ligase. J. Mol. Biol. 381: 928-940.
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CHROMOSOMAL LOCATION

Genetic locus: TULP4 (human) mapping to 6q25.3.

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

TULP4 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 TULP4 shRNA Plasmid (h): sc-95442-SH and TULP4 shRNA (h) Lentiviral Particles: sc-95442-V as alternate gene silencing products.

For independent verification of TULP4 (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-95442A, sc-95442B and sc-95442C.

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

TULP4 siRNA (h) is recommended for the inhibition of TULP4 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 TULP4 gene expression knockdown using RT-PCR Primer: TULP4 (h)-PR: sc-95442-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.