SANTA CRUZ BIOTECHNOLOGY, INC.

Tctex2 β siRNA (h): sc-88822

BACKGROUND

Tctex2 β, also known as TCTEX1D4 (Tctex1 domain-containing protein 4), is a 221 amino acid ubiquitously expressed protein that belongs to the dynein light chain Tctex-type family. While it interacts with endoglin, a component of the transforming growth factor β (TGFB) receptor complex, Tctex2 β also interacts with TGFβ RII and TGFβ RIII, two members of the TGFB receptor subfamily. The gene that encodes Tctex2 β consists of approximately 1,378 bases and maps to human chromosome 1p34.1. With roughly 3,000 genes that span about 260 million base pairs, chromosome 1 makes up approximately 8% of the human genome. There are also a large number of diseases associated with chromosome 1, notably, the rare aging disease Hutchinson-Gilford progeria which is associated with the LMNA gene that encodes Lamin A. The MUTYH gene is located on chromosome 1 and is partially responsible for familial adenomatous polyposis. Stickler syndrome, Parkinsons, Gaucher disease and Usher syndrome are also associated with chromosome 1.

REFERENCES

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5. Tayebi, N., et al. 2001. Gaucher disease and parkinsonism: a phenotypic and genotypic characterization. Mol. Genet. Metab. 73: 313-321.
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8. Betarbet, R., et al. 2008. Fas-associated factor 1 and Parkinson's disease. Neurobiol. Dis. 31: 309-315.
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CHROMOSOMAL LOCATION

Genetic locus: TCTEX1D4 (human) mapping to 1p34.1.

PRODUCT

Tctex2 β siRNA (h) 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Tctex2 β shRNA Plasmid (h): sc-88822-SH and Tctex2 β shRNA (h) Lentiviral Particles: sc-88822-V as alternate gene silencing 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

Tctex2 β siRNA (h) is recommended for the inhibition of Tctex2 β 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 Tctex2 β gene expression knockdown using RT-PCR Primer: Tctex2 β (h)-PR: sc-88822-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.