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# TTLL7 siRNA (m): sc-154795

## BACKGROUND

TTLL7 (Tubulin tyrosine ligase-like family, member 7), also known as testis development protein NYD-SP30 or Tubulin polyglutamylase TTLL7, is an 887 amino acid protein that functions as a polyglutamylase that modifies  $\beta$ -Actin and plays an essential role in neurite growth. Localizing to the cytoplasm, cell projection and perikaryon, TTLL7 is a member of the Tubulin—tyrosine ligase family and is expressed at highest levels in cerebellum, spinal cord, thalamus, hypothalamus and hippocampus. TTLL7 contains one TTL domain, exists as three alternatively spliced isoforms, and is encoded by a gene that maps to human chromosome 1p31.1. Human chromosome 1 spans 260 million base pairs, contains over 3,000 genes, comprises nearly 8% of the human genome and houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: Ttll7 (mouse) mapping to 3 H2.

## PRODUCT

TTLL7 siRNA (m) 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see TTLL7 shRNA Plasmid (m): sc-154795-SH and TTLL7 shRNA (m) Lentiviral Particles: sc-154795-V as alternate gene silencing products.

For independent verification of TTLL7 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-154795A, sc-154795B and sc-154795C.

## 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  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

TTLL7 siRNA (m) is recommended for the inhibition of TTLL7 expression in mouse 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  $\mu$ M in 66  $\mu$ l. 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 TTLL7 gene expression knockdown using RT-PCR Primer: TTLL7 (m)-PR: sc-154795-PR (20  $\mu$ l). 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.