

## Tctex5 siRNA (m): sc-154152

### BACKGROUND

Tctex5, also known as PPP1R11 (protein phosphatase 1, regulatory (inhibitor) subunit 11), HCGV or TCTE5, is a 126 amino acid protein that is expressed in a variety of both adult and fetal tissues. Tctex5 functions as an inhibitor of PP1 (protein phosphatase 1), specifically exhibiting a sensitivity toward the metal-independent and metal-dependent forms of PP1. Sharing 87% sequence similarity with its mouse counterpart, Tctex5 is thought to be evolutionarily conserved throughout animal evolution, particularly between rat, bovine, canine, rabbit and human. The gene encoding Tctex5 maps to human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, Porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

### REFERENCES

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### CHROMOSOMAL LOCATION

Genetic locus: Ppp1r11 (mouse) mapping to 17 B1.

### PRODUCT

Tctex5 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 Tctex5 shRNA Plasmid (m): sc-154152-SH and Tctex5 shRNA (m) Lentiviral Particles: sc-154152-V as alternate gene silencing products.

For independent verification of Tctex5 (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-154152A, sc-154152B and sc-154152C.

### 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

Tctex5 siRNA (m) is recommended for the inhibition of Tctex5 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 Tctex5 gene expression knockdown using RT-PCR Primer: Tctex5 (m)-PR: sc-154152-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.