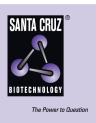
# SANTA CRUZ BIOTECHNOLOGY, INC.

# WTIP siRNA (r): sc-270332



### BACKGROUND

Wilms' tumor (WT) is an embryonal malignancy of the kidney that affects 1 in 10,000 infants and is observed in both sporadic and inherited forms. The Wilms' tumor locus has been mapped at chromosome 11p13 as a tumor suppressor gene which encodes a DNA binding protein with four zinc fingers and a glutamine-proline rich amino-terminus. WTIP (Wilms tumor 1 interacting protein) is a 654 amino acid LIM domain protein that belongs to the zyxin/ ajuba family, interacts with WT1 (Wilms tumor 1) and is thought to play a role in slit diaphragm protein assembly. Acting as a transcription regulator, WTIP shuttles between nucleus and adhesion structures following podocyte injury to repress WT1-dependent transcription regulation. WTIP contains three LIM zinc-binding domains and is encoded by a gene that maps to human chromosome 19q13.11.

## REFERENCES

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- 4. Yang, L., et al. 2007. A tumor suppressor and oncogene: the WT1 story. Leukemia 21: 868-876.
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- van Wijk, N.V., et al. 2009. The LIM domain protein WTIP interacts with the receptor tyrosine kinase Ror2 and inhibits canonical Wnt signalling. Biochem. Biophys. Res. Commun. 390: 211-216.
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- Hou, Z., et al. 2010. LIM protein Ajuba functions as a nuclear receptor corepressor and negatively regulates retinoic acid signaling. Proc. Natl. Acad. Sci. USA 107: 2938-2943.

## CHROMOSOMAL LOCATION

Genetic locus: Wtip (rat) mapping to 1q21.

#### PRODUCT

WTIP siRNA (r) 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see WTIP shRNA Plasmid (r): sc-270332-SH and WTIP shRNA (r) Lentiviral Particles: sc-270332-V as alternate gene silencing products.

#### **RESEARCH USE**

For research use only, not for use in diagnostic procedures.

#### 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**

WTIP siRNA (r) is recommended for the inhibition of WTIP expression in rat 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 WTIP gene expression knockdown using RT-PCR Primer: WTIP (r)-PR: sc-270332-PR (20  $\mu$ I, 562 bp). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

#### **PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.