

# PTIP siRNA (m): sc-76288

## BACKGROUND

PTIP, also known as PAXIP1 (PAX interacting (with transcription-activation domain) protein 1), TNRC2, CAGF28, CAGF29, PACIP1 or PAXIP1L, is a 1,035 amino acid protein that localizes to both the nuclear membrane and the matrix side of the peripheral membrane and contains five BRCT domains. Existing as multiple alternatively spliced isoforms, PTIP functions as a crucial component of the DNA damage response pathway, specifically recognizing phosphorylated substrates and acting as a phosphoserine or phosphothreonine-specific binding module. Additionally, via its protein binding capabilities, PTIP may be involved in early development and cellular proliferation.

## REFERENCES

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4. Rademakers, R., et al. 2005. Linkage and association studies identify a novel locus for Alzheimer disease at 7q36 in a Dutch population-based sample. *Am. J. Hum. Genet.* 77: 643-652.
5. Cho, Y.W., et al. 2007. PTIP associates with MLL3- and MLL4-containing histone H3 lysine 4 methyltransferase complex. *J. Biol. Chem.* 282: 20395-20406.
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7. Göhler, T., et al. 2008. PTIP/Swift is required for efficient PCNA ubiquitination in response to DNA damage. *DNA Repair* 7: 775-787.
8. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 608254. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: Paxip1 (mouse) mapping to 5 B1.

## PRODUCT

PTIP 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 PTIP shRNA Plasmid (m): sc-76288-SH and PTIP shRNA (m) Lentiviral Particles: sc-76288-V as alternate gene silencing products.

For independent verification of PTIP (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-76288A, sc-76288B and sc-76288C.

## 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

PTIP siRNA (m) is recommended for the inhibition of PTIP 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 PTIP gene expression knockdown using RT-PCR Primer: PTIP (m)-PR: sc-76288-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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.