

# PPIL4 siRNA (h): sc-95191

## BACKGROUND

Cyclophilins are conserved, ubiquitous and abundant cytosolic peptidylprolyl *cis-trans* isomerases that accelerate the isomerization of XaaPro peptide bonds and the refolding of proteins. PPIL4 (peptidylprolyl isomerase (cyclophilin)-like 4), also known as HDCME13P, is a 492 amino acid, evolutionarily conserved member of the cyclophilin-type PPlase family of proteins. Ubiquitously expressed with predominant expression in kidney, PPIL4 localizes to the nucleus and contains one PPlase cyclophilin-type domain, a lysine-rich domain, a pair of bipartite nuclear targeting sequences and one RRM (RNA recognition motif) domain. The presence of the RRM domain along with nuclear targeting sequences suggests that PPIL4 may be involved in transcriptional regulation.

## REFERENCES

- Gardiner, K., Weissman, S. and Werner, T. 2001. Report on the Eleventh International Workshop on the Identification of Transcribed Sequences 2001. November 9-11, 2001. Washington, DC, USA. Cytogenet. Cell Genet. 95: 1-8.
- Zeng, L., Zhou, Z., Xu, J., Zhao, W., Wang, W., Huang, Y., Cheng, C., Xu, M., Xie, Y. and Mao, Y. 2001. Molecular cloning, structure and expression of a novel nuclear RNA-binding cyclophilin-like gene (PPIL4) from human fetal brain. Cytogenet. Cell Genet. 95: 43-47.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607609. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Nebert, D.W., Sophos, N.A., Vasiliou, V. and Nelson, D.R. 2004. Cyclophilin nomenclature problems, or, "a visit from the sequence police". Hum. Genomics 1: 381-388.
- Valle, C., Troiani, A.R., Lazzaretti, P., Bouvier, J., Cioli, D. and Klinkert, M.Q. 2005. Molecular and biochemical characterization of a protein cyclophilin from the nematode *Haemonchus contortus*<sup>p</sup>. Parasitol. Res. 96: 199-205.

## CHROMOSOMAL LOCATION

Genetic locus: PPIL4 (human) mapping to 6q25.1.

## PRODUCT

PPIL4 siRNA (h) 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 PPIL4 shRNA Plasmid (h): sc-95191-SH and PPIL4 shRNA (h) Lentiviral Particles: sc-95191-V as alternate gene silencing products.

For independent verification of PPIL4 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-95191A, sc-95191B and sc-95191C.

## PROTOCOLS

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

PPIL4 siRNA (h) is recommended for the inhibition of PPIL4 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  $\mu$ 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.

## GENE EXPRESSION MONITORING

PPIL4 (73K-7): sc-100702 is recommended as a control antibody for monitoring of PPIL4 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor PPIL4 gene expression knockdown using RT-PCR Primer: PPIL4 (h)-PR: sc-95191-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.