

PPIL1 siRNA (h): sc-95262

BACKGROUND

PPIL1 (peptidylprolyl isomerase (cyclophilin)-like 1), also known as CYPL1, PPlase, CGI-124 or hCyPX, is a member of the cyclophilin-type PPlase family of proteins. PPIL1 contains one PPlase cyclophilin-type domain and is ubiquitously expressed with predominant expression in skeletal muscle and heart. PPIL1 is a component of the 35 S U5 snRNP (small nuclear ribonucleoprotein) and is also recruited to the 45 S activated spliceosome by Skip (SNW1), a transcriptional coactivator. PPIL1 stably associates with Skip and may play a role in spliceosome activation, possibly functioning as a foldase or a molecular chaperone. In addition, PPIL1 interacts with Op18, a protein involved in microtubule stabilization, and may participate in cell proliferation. PPIL1 expression levels are elevated in cancer cells, further supporting a role for PPIL1 in proliferation and tumorigenesis.

REFERENCES

1. Ozaki, K., et al. 1996. Cloning, expression and chromosomal mapping of a novel cyclophilin-related gene (PPIL1) from human fetal brain. *Cytogenet. Cell Genet.* 72: 242-245.
2. Mann, S.S., et al. 1998. Reassignment of peptidyl prolyl isomerase-like 1 gene (PPIL1) to human chromosome region 6p21.1 by radiation hybrid mapping and fluorescence *in situ* hybridization. *Cytogenet. Cell Genet.* 83: 228-229.
3. Skruzny, M., et al. 2001. Cyclophilins of a novel subfamily interact with SNW/SKIP coregulator in *Dictyostelium discoideum* and *Schizosaccharomyces pombe*. *Biochim. Biophys. Acta* 1521: 146-151.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 601301. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Folk, P., et al. 2004. Transcriptional coregulator SNW/SKIP: the concealed tie of dissimilar pathways. *Cell. Mol. Life Sci.* 61: 629-640.
6. Xu, C., et al. 2006. Solution structure of human peptidyl prolyl isomerase-like protein 1 and insights into its interaction with SKIP. *J. Biol. Chem.* 281: 15900-15908.

CHROMOSOMAL LOCATION

Genetic locus: PPIL1 (human) mapping to 6p21.2.

PRODUCT

PPIL1 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PPIL1 shRNA Plasmid (h): sc-95262-SH and PPIL1 shRNA (h) Lentiviral Particles: sc-95262-V as alternate gene silencing products.

For independent verification of PPIL1 (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-95262A, sc-95262B and sc-95262C.

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

APPLICATIONS

PPIL1 siRNA (h) is recommended for the inhibition of PPIL1 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 μ M in 66 μ 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

PPIL1 (LB-72): sc-100701 is recommended as a control antibody for monitoring of PPIL1 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 κ BP-HRP: sc-516102 or m-IgG κ 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 κ BP-FITC: sc-516140 or m-IgG κ 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 PPIL1 gene expression knockdown using RT-PCR Primer: PPIL1 (h)-PR: sc-95262-PR (20 μ 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 for detailed protocols and support products.