

PPIL2 siRNA (m): sc-142740

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. PPIL2 (cyclophilin-60), also known as PPI2 (peptidylprolyl isomerase (cyclophilin)-like 2), CYC4 or PPlase, is a 520 amino acid nuclear protein that belongs to the PPI2 subfamily of the cyclophilin-type PPlase family. As a peptidylprolyl isomerase, PPI2 accelerates protein folding, specifically the *cis-trans* isomerization of oligopeptide proline imidic peptide bonds. Existing as two alternatively spliced isoforms, PPI2 is highly expressed in testis, pancreas and placenta, along with many melanomas and lymphomas, and is expressed at lower levels in spleen, kidney, prostate, small intestine, colon, heart, placenta, liver and lung. The gene encoding PPI2 maps to human chromosome 22q11.21.

REFERENCES

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2. Hatakeyama, S., et al. 2001. U box proteins as a new family of ubiquitin-protein ligases. *J. Biol. Chem.* 276: 33111-33120.
3. Online Mendelian Inheritance in Man, OMIM[™]. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 607588. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Pushkarsky, T., et al. 2005. Cell surface expression of CD147/EMMPRIN is regulated by cyclophilin 60. *J. Biol. Chem.* 280: 27866-27871.
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CHROMOSOMAL LOCATION

Genetic locus: Ppil2 (mouse) mapping to 16 A3.

PRODUCT

PPIL2 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PPIL2 shRNA Plasmid (m): sc-142740-SH and PPIL2 shRNA (m) Lentiviral Particles: sc-142740-V as alternate gene silencing products.

For independent verification of PPIL2 (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-142740A, sc-142740B and sc-142740C.

PROTOCOLS

See our web site at 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 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

PPIL2 siRNA (m) is recommended for the inhibition of PPIL2 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 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

PPIL2 (H-2): sc-398201 is recommended as a control antibody for monitoring of PPIL2 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 PPIL2 gene expression knockdown using RT-PCR Primer: PPIL2 (m)-PR: sc-142740-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.