



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

Ppil3 siRNA (m): sc-152410

BACKGROUND

Cyclophilins are conserved, ubiquitous and abundant cytosolic peptidyl-prolyl *cis-trans* isomerases that accelerate the isomerization of XaaPro peptide bonds and the refolding of proteins. Human cyclophilin A (CyPA), an intracellular protein of 165 amino acids, is the target of cyclosporin A (CsA) and is encoded by a single unique gene conserved between yeast and humans. Cyclophilin B (CyPB) is secreted in biological fluids such as blood and milk, and binds to a specific receptor present on human peripheral blood lymphocytes and is expressed in Jurkat cells, a line of human lymphoblasts. Cyclophilin D (CyP40) is a widely expressed cytoplasmic protein that catalyzes the *cis-trans* isomerization of proline imidic peptide bonds in oligopeptides. Cyclophilin J (CYPJ), also known as PPII3 (peptidylprolyl isomerase (cyclophilin)-like 3), is a 161 amino acid ubiquitously expressed member of the cyclophilin-type PPIase family that may be involved in pre-mRNA splicing. Cyclophilin J exists as two alternatively spliced isoforms.

REFERENCES

1. Bowles, K.R., Zintz, C., Abraham, S.E., Brandon, L., Bowles and N.E., Towbin, J.A. 1999. Genomic characterization of the human peptidyl-prolyl *cis-trans*-isomerase, mitochondrial precursor gene: assessment of its role in familial dilated cardiomyopathy. *Hum. Genet.* 105: 582-586.
2. Basso, E., Fante, L., Fowlkes, J., Petronilli, V., Forte and M.A., Bernardi, P. 2005. Properties of the permeability transition pore in mitochondria devoid of Cyclophilin D. *J. Biol. Chem.* 280: 18558-18561.
3. Baines, C.P., Kaiser, R.A., Purcell, N.H., Blair, N.S., Osinska, H., Hambleton, M.A., Brunskill, E.W., Sayen, M.R., Gottlieb, R.A., Dorn, G.W., Robbins and J., Molkentin, J.D. 2005. Loss of cyclophilin D reveals a critical role for mitochondrial permeability transition in cell death. *Nature* 434: 658-662.
4. Hu, P., Zhang and M., Napoli, J.L. 2007. Ontogeny of rdh9 (Crad3) expression: ablation causes changes in retinoid and steroid metabolizing enzymes, but RXR and androgen signaling seem normal. *Biochim. Biophys. Acta* 1770: 694-705.
5. Naga, K.K., Sullivan and P.G., Geddes, J.W. 2007. High cyclophilin D content of synaptic mitochondria results in increased vulnerability to permeability transition. *J. Neurosci.* 27: 7469-7475.
6. Du, H., Guo, L., Fang, F., Chen, D., Sosunov, A.A., McKhann, G.M., Yan, Y., Wang, C., Zhang, H., Molkentin, J.D., Gunn-Moore, F.J., Vonsattel, J.P., Arancio, O., Chen and J.X., Yan, S.D. 2008. Cyclophilin D deficiency attenuates mitochondrial and neuronal perturbation and ameliorates learning and memory in Alzheimer's disease. *Nat. Med.* 14: 1097-1105.
7. Luvisetto, S., Basso, E., Petronilli, V., Bernardi and P., Forte, M. 2008. Enhancement of anxiety, facilitation of avoidance behavior, and occurrence of adult-onset obesity in mice lacking mitochondrial cyclophilin D. *Neuroscience* 155: 585-596.
8. Halestrap, A.P., Pasdois, P. 2009. The role of the mitochondrial permeability transition pore in heart disease. *Biochim. Biophys. Acta* 1787: 1402-1415.

CHROMOSOMAL LOCATION

Genetic locus: Ppil3 (mouse) mapping to 1 C1.3.

PRODUCT

Ppil3 siRNA (m) 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Ppil3 shRNA Plasmid (m): sc-152410-SH and Ppil3 shRNA (m) Lentiviral Particles: sc-152410-V as alternate gene silencing 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

Ppil3 siRNA (m) is recommended for the inhibition of Ppil3 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Ppil3 gene expression knockdown using RT-PCR Primer: Ppil3 (m)-PR: sc-152410-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.