



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) 

PDIR (m): 293T Lysate: sc-122469

BACKGROUND

Oxidoreductase-protein disulfide isomerase (PDI) is a homodimer that catalyzes thiol-disulfide exchange, mediates folding of newly synthesized proteins and functions as a molecular chaperone. PDIR (protein disulfide isomerase-related protein), also known as PDIA5 (protein disulfide-isomerase A5), is a 519 amino acid protein that catalyzes the rearrangement of sulfur-sulfur bonds in various proteins. Localized to the lumen of the endoplasmic reticulum (ER), PDIR has an oxidative refolding activity that is specific for α 1-antitrypsin (AAT) and aids in the formation of disulfide bonds in the ER lumen. PDIR contains one ER retention signal at its C-terminus and three thioredoxin (CXXC) motifs which mediate the substrate-specific isomerase, chaperone and redox activity of PDIR.

REFERENCES

- Hayano, T. and Kikuchi, M. 1995. Molecular cloning of the cDNA encoding a novel protein disulfide isomerase-related protein (PDIR). *FEBS Lett.* 372: 210-214.
- Horibe, T., Gomi, M., Iguchi, D., Ito, H., Kitamura, Y., Masuoka, T., Tsujimoto, I., Kimura, T. and Kikuchi, M. 2004. Different contributions of the three CXXC motifs of human protein-disulfide isomerase-related protein to isomerase activity and oxidative refolding. *J. Biol. Chem.* 279: 4604-4611.
- Horibe, T., Iguchi, D., Masuoka, T., Gomi, M., Kimura, T. and Kikuchi, M. 2004. Replacement of domain B of human protein disulfide isomerase-related protein with domain B of human protein disulfide isomerase dramatically increases its chaperone activity. *FEBS Lett.* 566: 311-315.
- Jessop, C.E., Chakravarthi, S., Watkins, R.H. and Bulleid, N.J. 2004. Oxidative protein folding in the mammalian endoplasmic reticulum. *Biochem. Soc. Trans.* 32: 655-658.
- Maniratanachote, R., Minami, K., Katoh, M., Nakajima, M. and Yokoi, T. 2005. Chaperone proteins involved in troglitazone-induced toxicity in human hepatoma cell lines. *Toxicol. Sci.* 83: 293-302.
- Alanen, H.I., Salo, K.E., Pirneskoski, A. and Ruddock, L.W. 2006. pH dependence of the peptide thiol-disulfide oxidase activity of six members of the human protein disulfide isomerase family. *Antioxid. Redox Signal.* 8: 283-291.

CHROMOSOMAL LOCATION

Genetic locus: *Pdia5* (mouse) mapping to 16 B3.

PRODUCT

PDIR (m): 293T Lysate represents a lysate of mouse PDIR transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

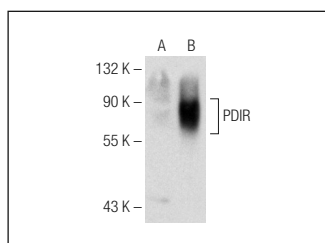
APPLICATIONS

PDIR (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive PDIR antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

PDIR (C-2): sc-365500 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse PDIR expression in PDIR transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

DATA



PDIR (C-2): sc-365500. Western blot analysis of PDIR expression in non-transfected: sc-117752 (A) and mouse PDIR transfected: sc-122469 (B) 293T whole cell lysates.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.