



# SZABO SCANDIC

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## 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

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# Anti-PDI Antibody

Rabbit Anti-Rat PDI Polyclonal  
Catalog No. SPC-114



Discovery through partnership | Excellence through quality

## Overview

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### Product Name

PDI Antibody

### Description

Rabbit Anti-Rat PDI Polyclonal

### Species Reactivity

Dog, Human, Monkey, Mouse, Rat, African clawed frog (*Xenopus laevis*), Bovine, Guinea Pig (*Cavia porcellus*), Hamster, Mollusk, Mussel (*Perna viridis*), Pig, Sheep

### Applications

WB, IHC, ICC/IF, IP

### Antibody Dilution

WB (1:1000), ICC/IF (1:100); optimal dilutions for assays should be determined by the user.

### Host Species

Rabbit

### Immunogen Species

Rat

### Immunogen

Rat PDI synthetic peptide conjugated to KLH

### Concentration

1 mg/ml

### Conjugates

Alkaline Phosphatase, APC, ATTO 390, ATTO 488, ATTO 565, ATTO 594, ATTO 633, ATTO 655, ATTO 680, ATTO 700, Biotin, FITC, HRP, PE/ATTO 594, PerCP, RPE, Streptavidin, Unconjugated

## Properties

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### Storage Buffer

PBS pH7.4, 50% glycerol, 0.09% sodium azide

### Storage Temperature

-20°C

### Shipping Temperature

Blue Ice or 4°C

### Purification

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Peptide Affinity Purified

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### Clonality

Polyclonal

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### Specificity

Detects ~58kDa.

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### Cite This Product

Rabbit Anti-Rat PDI Polyclonal (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SPC-114)

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### Certificate Of Analysis

A 1:1000 dilution of SPC-114 was sufficient for detection of PDI in 20 µg of HeLa cell lysate by ECL immunoblot analysis.

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## Biological Description

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### Alternative Names

PDA2 Antibody, PDI Antibody, PDIA2 Antibody, PDIP Antibody, pancreatic protein disulfide isomerase Antibody

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### Research Areas

Cell Signaling, Chaperones, Organelle Markers, Trafficking

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### Cellular Localization

Endoplasmic Reticulum, Endoplasmic reticulum lumen

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### Accession Number

NP\_001099245.2

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### Gene ID

287164

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### Swiss Prot

P04785

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### Scientific Background

The three dimensional structure of many extracellular proteins is stabilized by the formation of disulphide bonds. Studies suggest that a microsomal enzyme known as Protein Disulphide Isomerase (PDI) is involved in disulphide-bond formation via its oxidase activity and isomerization via its isomerase activity, as well as the reduction of disulphide bonds in proteins (1). Studies suggest BiP and PDI work together sequentially to increase oxidation of these proteins (2, 3). PDI has also been found to function as a chaperone to prevent the aggregation of unfolded substrates, and serves as a subunit of prolyl 4-hydroxylase and microsomal triglyceride transferase (4, 5).

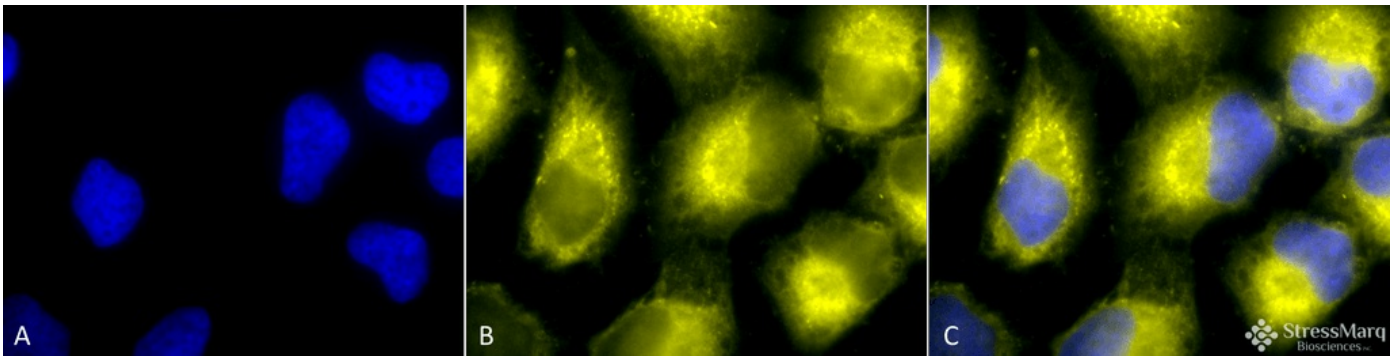
PDI is an abundant 55kDa protein located primarily in the ER, however studies have also proved its presence in the cytosol (1). PDI has the ability to reside in the ER permanently due to the highly conserved KDEL sequence at its carboxy-terminus (6). It uses carboxy-terminal KDEL as a retention signal, and this appears to be sufficient to reduce the secretion of proteins from the ER. This retention is reported to be mediated by a KDEL receptor (7).

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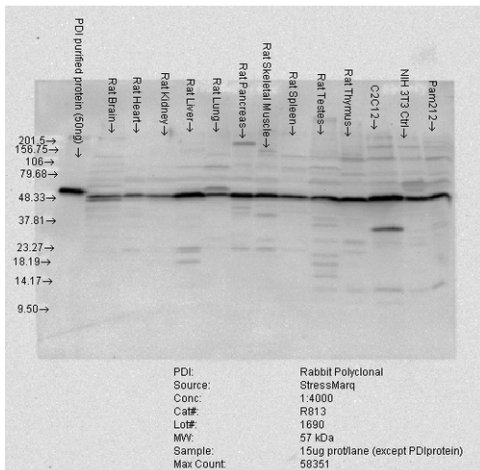
### References

1. NA K.S. et al. (2007) *Mol Cells*. 24(2): 261-7.
2. Mayer M., Kies U., Kammermeier R., and Buchner J. (2000) *J Biol Chem*. 275(38): 29421-5.
3. Delom F., Mallet B., Carayon P., and Lejeune P.J. (2001) *J Biol Chem* 276(24): 21337-42.
4. Schultz-Norton J.R., McDonald W.H., Yates J.R. and Nardulli A.M. (2006) *Mol Endocrinol* 20(9): 1982-95.
5. Turano C., Coppari S. Altieri F. and Ferraro (2002) *J Cell Physiol* 193: 154-163.
6. Janiszewski M. (2005) *J. Biol Chem*. 280(49): 40813- 40819.

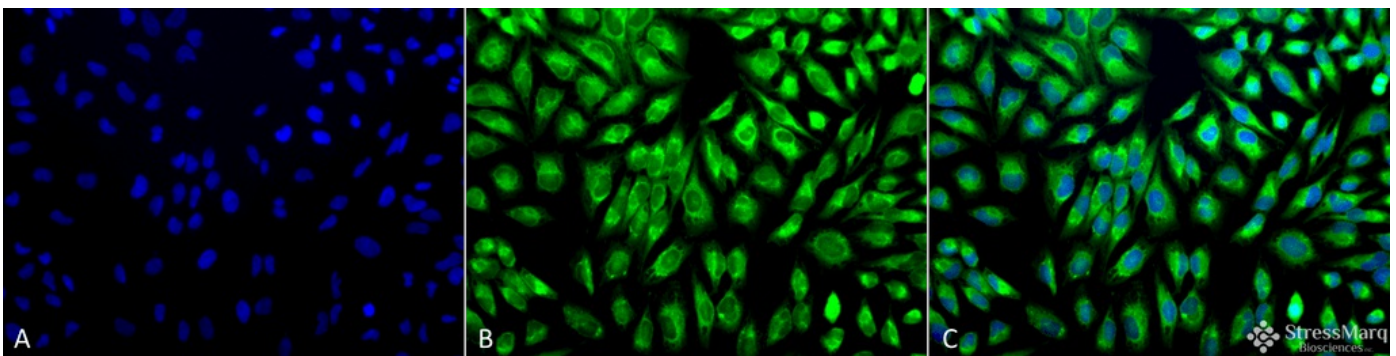
## Product Images



Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-PDI Polyclonal Antibody (SPC-114). Tissue: HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-PDI Polyclonal Antibody (SPC-114) at 1:100 for 12 hours at 4°C. Secondary Antibody: R-PE Goat Anti-Rabbit (yellow) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Endoplasmic reticulum lumen, Melanosome. Magnification: 100x. (A) DAPI (blue) nuclear stain. (B) Anti-PDI Antibody. (C) Composite.



Western blot analysis of Rat tissue mix showing detection of PDI protein using Rabbit Anti-PDI Polyclonal Antibody (SPC-114). Load: 15 µg protein. Block: 1.5% BSA. Primary Antibody: Rabbit Anti-PDI Polyclonal Antibody (SPC-114) at 1:4000 for 2 hours at RT. Secondary Antibody: Donkey Anti-Rabbit IgG: HRP for 1 hour at RT.



Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-PDI Polyclonal Antibody (SPC-114). Tissue: HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-PDI Polyclonal Antibody (SPC-114) at 1:100 for 12 hours at 4°C. Secondary Antibody: FITC Goat Anti-Rabbit (green) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Endoplasmic reticulum lumen, Melanosome. Magnification: 20x. (A) DAPI (blue) nuclear stain. (B) Anti-PDI Antibody. (C) Composite.

## Product Citations (3)

## Western Blot

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**Peptidylprolyl isomerase A governs TARDBP function and assembly in heterogeneous nuclear ribonucleoprotein complexes.**

Lauranzano, E. et al. (2015) Brain. 138(Pt 4):974-91.

**PubMed ID:** 25678563    **Reactivity:** Human    **Applications:** Western Blot

**Peptidylprolyl isomerase A governs TARDBP function and assembly in heterogeneous nuclear ribonucleoprotein complexes.**

Lauranzano, E. et al. (2015) Brain. 138(Pt 4):974-91.

**PubMed ID:** 25678563    **Reactivity:** Mouse    **Applications:** Western Blot

**Differential proteomic responses in hepatopancreas and adductor muscles of the green-lipped mussel *Perna viridis* to stresses induced by cadmium and hydrogen peroxide.**

Leung, P.T.Y., Wang, Y., Mak, S.S.T. and Leung, K. M.Y. (2011) Aquat Toxicol. 105 (1-2): 49-61.

**PubMed ID:** 21684241    **Reactivity:** *Perna viridis* (Asian green mussel)    **Applications:** Western Blot

## Reviews

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Based on validation through cited publications.



**StressMarq Biosciences**  
June 15, 2016: