

# PDI Antibody

✓ 100 µl (10 western blots)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IHC-P, IF-IC Endogenous	H, M, R, Mk	57 kDa	Rabbit**

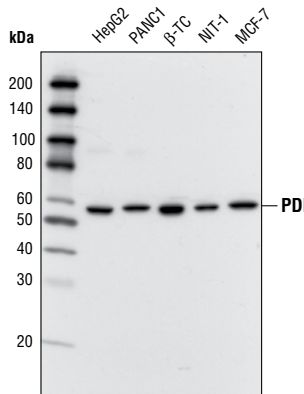
**Background:** Secretory proteins translocate into the endoplasmic reticulum (ER) after their synthesis where they are post-translationally modified and properly folded. To reach their native conformation, many secretory proteins require the formation of intra- or inter-molecular disulfide bonds (1). This process is called oxidative protein folding. Disulfide isomerase (PDI) catalyzes the formation and isomerization of these disulfide bonds (2). Studies on mechanisms of oxidative folding suggest that molecular oxygen oxidizes ER-protein Ero1, which in turn oxidizes PDI through disulfide exchange (3). This event is then followed by PDI-catalyzed disulfide bond formation on folding proteins (3).

**Specificity/Sensitivity:** PDI Antibody detects endogenous levels of total PDI protein.

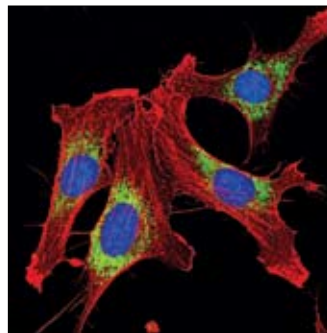
**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro329 of human PDI. Antibodies are purified by protein A and peptide affinity chromatography.

**Background References:**

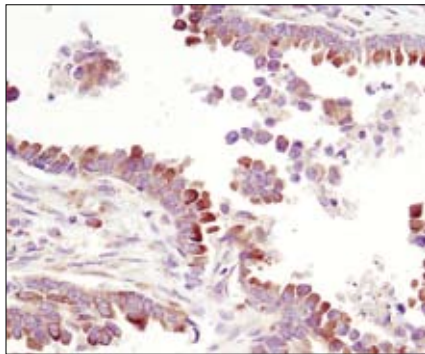
- (1) Huppa, J.B. and Ploegh, H.L. (1998) *Cell* 92, 145–148.
- (2) Ellgaard, L. and Ruddock, L.W. (2005) *EMBO Rep.* 6, 28–32.
- (3) Tu, B.P. and Weissman, J.S. (2004) *J. Cell Biol.* 164, 341–346.



Western blot analysis of extracts from various cell lines using PDI Antibody.



Confocal immunofluorescent analysis of NIH/3T3 cells using PDI Antibody (green) and β-Actin (8H10D10) Mouse mAb #3700 (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).



Immunohistochemical analysis of paraffin-embedded human lung carcinoma using PDI Antibody.

Entrez-Gene ID #5034  
Swiss-Prot Acc. #P07237

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

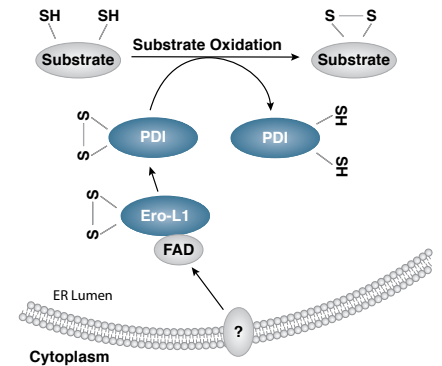
**\*Species cross-reactivity is determined by western blot.**  
**\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.**

**Recommended Antibody Dilutions:**

Western blotting	1:1000
Immunohistochemistry (Paraffin)	1:100†
Unmasking buffer:	Citrate
Antibody diluent:	SignalStain® Antibody Diluent #8112
Detection reagent:	SignalStain® Boost (HRP, Rabbit) #8114
†Optimal IHC dilutions determined using SignalStain® Boost IHC Detection Reagent.	
Immunofluorescence (IF-IC)	1:50
IF Protocol:	Methanol Permeabilization required

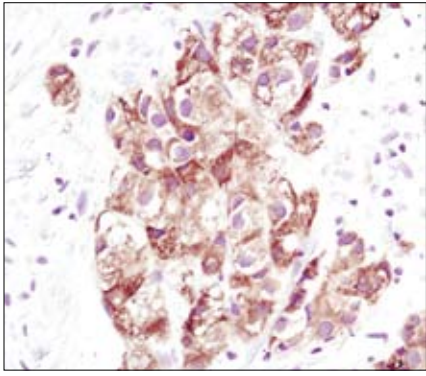
For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.



**IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.**

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*Immunohistochemical analysis of paraffin-embedded human breast carcinoma using PDI Antibody.*