

#2446

Store at -20°C

PDI Antibody

✓ 100 µl
(10 western blots)

Orders ■ 877-616-CELL (2355)
orders@cellsignal.com
Support ■ 877-678-TECH (8324)
info@cellsignal.com
Web ■ www.cellsignal.com

rev. 03/15/10

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.

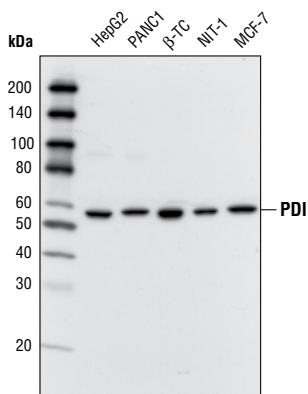
Entrez-Gene ID #5034
Swiss-Prot Acc. #P07237

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

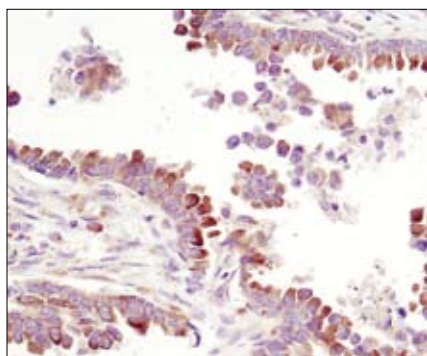
Background: Secretory proteins translocate into the endoplasmic reticulum (ER) after their synthesis where they are post-translationally modified and properly folded. To reach their native conformation, many secretory proteins require the formation of intra- or inter-molecular disulfide bonds (1). This 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.

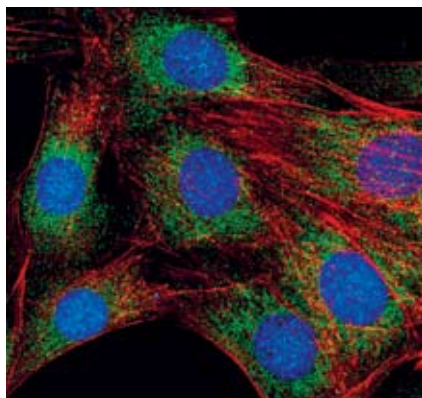
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro329 of human PDI. Antibodies are purified by protein A and peptide affinity chromatography.



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



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



Confocal immunofluorescent analysis of C2C12 cells using PDI Antibody (green). Actin filaments have been labeled with Alexa Fluor® 555 phalloidin (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).

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)	1:25
IF Protocol:	Methanol Permeabilization required

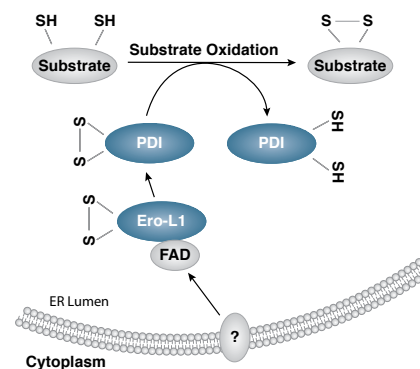
For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

Background References:

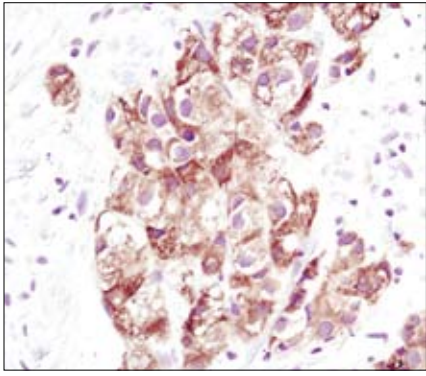
- (1) Huppa, J.B. and Pløegh, H.L. (1998) *Cell* 92, 145–148.
- (2) Ellgaard, L. and Ruddock, L.W. (2005) *EMBO Rep.* 6, 28–32.
- (3) Tu, B.P. and Weissman, J.S. (2004) *J. Cell Biol.* 164, 341–346.

DRAQ5® is a registered trademark of Biostatus Limited.



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.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.



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