#3501 Store at -20°C

PDI (C81H6) Rabbit mAb

☑ 100 µl
(10 western blots)

Cell Signaling TECHNOLOGY®

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

rev. 04/27/11

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

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

Background: Following their synthesis, secretory proteins translocate into the endoplasmic reticulum (ER) 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 the 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 (C81H6) Rabbit mAb detects endogenous levels of total PDI protein.

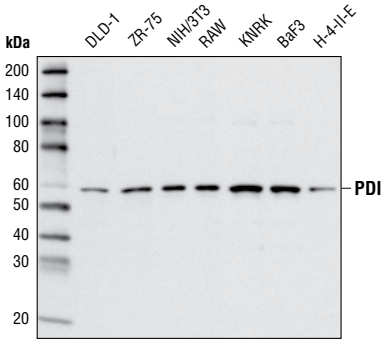
Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to the sequence of human PDI.

Background References:

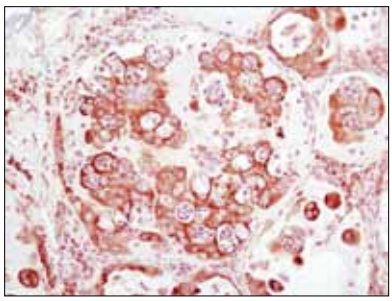
(1) Huppa, J.B. and Ploegh, H.L. (1998) *Cell* 92, 145–148.

(2) Ellgaard, L. and Ruddock, L.W. (2005) *EMBO Rep.* 6, 28–32.

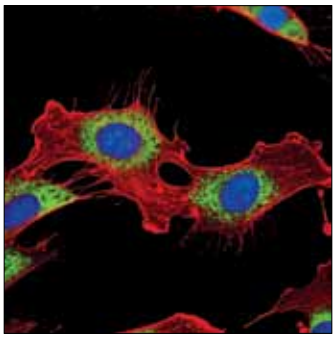
(3) Tu, B.P. and Weissman, J.S. (2004) *J. Cell Biol.* 164, 341–346.



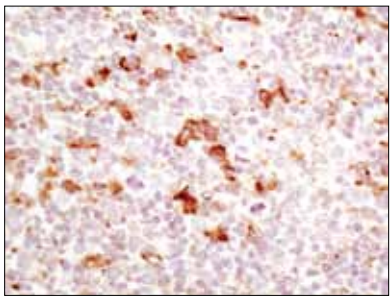
Western blot analysis of extracts from various cell types using PDI (C81H6) Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded human lung carcinoma using PDI (C81H6) Rabbit mAb.



Confocal immunofluorescent analysis of NIH/3T3 cells using PDI (C81H6) Rabbit mAb (green) and β-Actin (8H10D10) Mouse mAb #3700 (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).



Immunohistochemical analysis of paraffin-embedded human lymphoma using PDI (C81H6) Rabbit mAb.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. 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)	1:1250
Unmasking buffer:	Citrate
Antibody diluent:	SignalStain® Antibody Diluent #8112
Immunofluorescence (IF-IC)	1:100
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.

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.