

# PDI Antibody



**Orders:** 877-616-CELL (2355)  
orders@cellsignal.com

**Support:** 877-678-TECH (8324)

**Web:** info@cellsignal.com  
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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<b>Applications:</b> W, IHC-P, IF-IC	<b>Reactivity:</b> H M R Mk	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 57	<b>Source/Isotype:</b> Rabbit	<b>UniProt ID:</b> #P07237	<b>Entrez-Gene Id:</b> 5034
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## Product Usage Information

### Application

Western Blotting  
Immunohistochemistry (Paraffin)  
Immunofluorescence (Immunocytochemistry)

### Dilution

1:1000  
1:100  
1:50

## 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.

## 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

During 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. Protein 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 in folding proteins (3).

## Background References

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

## Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

## Western Blot Buffer

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

## Applications Key

**W:** Western Blotting **IHC-P:** Immunohistochemistry (Paraffin) **IF-IC:** Immunofluorescence (Immunocytochemistry)

## Cross-Reactivity Key

**H:** Human **M:** Mouse **R:** Rat **Mk:** Monkey

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