

#8732
Store at -20C**Prdx1 Antibody**
Orders: 877-616-CELL (2355)
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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H M Mk	Endogenous	21	Rabbit	#Q06830	5052

Product Usage Information**Application**Western Blotting
Immunoprecipitation**Dilution**1:1000
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

Prdx1 Antibody recognizes endogenous levels of total Prdx1 protein. This antibody does not cross-react with Prdx2 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro108 of human Prdx1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

BackgroundPrdx1 belongs to a family of non-seleno peroxidases which function as H₂O₂ scavengers. All 6 prdx isoforms share a conserved N-terminal cysteine (Cys51) which is oxidized by H₂O₂ to Cysteine-Sulfenic acid (Cys51-SOH) and, in turn, reacts with Cys172-SH of the other prdx forming a disulfide dimer that protects it from degradation (1-3). Abnormally high levels of H₂O₂ cause Prdx1 to form an oligomeric chaperon that loses its peroxidase activity (4). Prdxs have been reported to bind to JNK and c-Abl and regulate their kinase activity (5,6). Prdx1 was shown to bind to PTEN and regulate its phosphatase activity in conditions of mild or no cellular stress, hence preventing Akt-driven transformation by protecting PTEN from oxidation-induced inactivation (7).**Background References**

1. Wood, Z.A. et al. (2003) *Trends Biochem Sci* 28, 32-40.
2. Chae, H.Z. et al. (1994) *J Biol Chem* 269, 27670-8.
3. Chae, H.Z. et al. (1994) *Proc Natl Acad Sci USA* 91, 7022-6.
4. Jang, H.H. et al. (2004) *Cell* 117, 625-35.
5. Wen, S.T. and Van Etten, R.A. (1997) *Genes Dev* 11, 2456-67.
6. Kim, Y.J. et al. (2006) *Cancer Res* 66, 7136-42.
7. Cao, J. et al. (2009) *EMBO J* 28, 1505-17.

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 **IP:** Immunoprecipitation**Cross-Reactivity Key****H:** Human **M:** Mouse **Mk:** Monkey**Trademarks and Patents**

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