

**PRDX2 Antibody**

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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	H M R	Endogenous	23	Rabbit	#P32119	7001

**Product Usage Information****Application**

Western Blotting

**Dilution**

1:1000

**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**

PRDX2 Antibody recognizes endogenous levels of total PRDX2 protein.

**Source / Purification**

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human PRDX2 protein. Antibodies are purified by protein A and peptide affinity chromatography.

**Background**

Peroxiredoxin 2 (PRDX2, PRXII, NKEFB) is a ubiquitously expressed thioredoxin peroxidase. The enzyme catalyzes the reduction of hydrogen peroxide and organic hydroperoxides via the thioredoxin system (1). An antioxidant, PRDX2 neutralizes endogenous reactive oxygen species (ROS) and regulates cytokine-induced peroxide levels for normal cell function (2). Research studies have shown that PRDX2 plays important roles in inflammation, cancer, and natural killer (NK) cell activation (3). During cancer progression, PRDX2 is upregulated and protects cancer cells from oxidative stress-induced apoptosis (4, 5). In inflammatory diseases such as infection, myocardial infarction, and ischemia, PRDX2 not only protects (host) cells from oxidative stress-induced death, but is also released into extracellular space to trigger local inflammation and to activate NK cells for innate immune response (6, 7).

**Background References**

1. Peskin, A.V. et al. (2007) *J Biol Chem* 282, 11885-92.
2. Poole, L.B. et al. (2011) *Curr Protoc Toxicol* Chapter 7, Unit7.9.
3. Ishii, T. et al. (2012) *J Clin Biochem Nutr* 50, 91-105.
4. Stresing, V. et al. (2013) *Oncogene* 32, 724-35.
5. Lu, W. et al. (2014) *Mol Cell Biochem* 387, 261-70.
6. Knoops, B. et al. (2016) *Mol Cells* 39, 60-4.
7. Jin, X. et al. (2017) *Sci Rep* 7, 6970.

**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

**Cross-Reactivity Key**

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

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