

PRDX6 (D9J9H) Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H	Endogenous	25	Rabbit IgG	#P30041	9588

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, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

PRDX6 (D9J9H) Rabbit mAb recognizes endogenous levels of total PRDX6 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human PRDX6 protein.

Background

Peroxiredoxin 6 (PRDX6) belongs to an antioxidant enzyme family of non-seleno peroxidases. PRDX6 is a unique member of the PRDX family, exhibiting both glutathione peroxidase and phospholipase A2 activities (1,2). PRDX6 regulates phospholipid turnover in addition to protecting cells against oxidative injury. PRDX6 is expressed in all major organs, with a particularly high level in lung, where it regulates lung surfactant phospholipid synthesis and turnover (3-5). Research studies have shown that PRDX6 is aberrantly expressed in various cancers, and can promote cancer cell metastasis and invasion (6,7). Elevated expression of PRDX6 and related PRDX family members has also been shown to contribute to drug resistance in cancer cells (8,9). PRDX6 is also expressed in neutrophils, where it has been shown to activate NADPH oxidase (NOX2) (10-12).

Background References

1. Kang, S.W. et al. (1998) *J Biol Chem* 273, 6303-11.
2. Chen, J.W. et al. (2000) *J Biol Chem* 275, 28421-7.
3. Manevich, Y. and Fisher, A.B. (2005) *Free Radic Biol Med* 38, 1422-32.
4. Schremmer, B. et al. (2007) *Subcell Biochem* 44, 317-44.
5. Lee, S.B. et al. (2009) *Mol Cells* 28, 583-8.
6. Ho, J.N. et al. (2010) *Mol Cancer Ther* 9, 825-32.
7. Yun, H.M. et al. (2014) *Free Radic Biol Med* 69, 367-76.
8. Pak, J.H. et al. (2011) *Cancer Invest* 29, 21-8.
9. Kalinina, E.V. et al. (2012) *Bull Exp Biol Med* 153, 878-81.
10. Chatterjee, S. et al. (2011) *J Biol Chem* 286, 11696-706.
11. Ambruso, D.R. et al. (2012) *Biochim Biophys Acta* 1823, 306-15.
12. Ambruso, D.R. (2013) *Methods Enzymol* 527, 145-67.

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

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