



Rabbit antibody to Peroxiredoxin-6 (NSGPx): whole serum

Catalogue No.:	R-169-100
Description:	FUNCTION: Involved in redox regulation of the cell. Can reduce H ₂ O ₂ and short chain organic, fatty acid, and phospholipid hydroperoxides. May play a role in the regulation of phospholipid turnover as well as in protection against oxidative injury. SUBUNIT: Homotetramer. SUBCELLULAR LOCATION: Cytoplasm. Lysosome. Also found in lung secretory organelles. MISCELLANEOUS: The active site is the redox-active Cys-47 oxidized to Cys-SOH. Cys-SOH may rapidly react with a Cys-SH of the other subunit to form an intermolecular disulfide with a concomitant homodimer formation. The enzyme may be subsequently regenerated by reduction of the disulfide by thioredoxin. MISCELLANEOUS: Irreversibly inactivated by overoxidation of Cys-47 (to Cys-SO ₃ H) upon oxidative stress. SIMILARITY: Belongs to the ahpC/TSA family. Rehydrin subfamily.
Batch No.:	See product label
Unit size:	100 uL
Antigen:	Rat recombinant Peroxiredoxin-6. The sequence is homologous in human and mouse peroxiredoxin-6.
Other Names:	Non-selenium glutathione peroxidase; antioxidant protein 2; 1-Cys peroxiredoxin; 1-Cys PRX; Acidic calcium-independent phospholipase A2; NSGPx; Thiol-specific antioxidant protein; Prdx6; Aipla2; Aop2; Tsa
Accession:	PRDX6_RAT PRDX6_HUMAN PRDX6_MOUSE
Produced in:	Rabbit
Purity:	Whole serum
Applications:	IHC, WB, ELISA. This antibody works superbly in Immunohistochemistry on frozen or paraffin embedded tissues. Antigen retrieval has been used in testing but may not be necessary. Typical working dilutions for routine immunohistochemistry are 1: 100 to 1: 1000 depending on tissue and detection method. For western blotting a dilution range of 1: 1000 to 1: 4000 is recommended. A dilution of 1: 1000 to 1: 4000 is recommended for ELISA. This antiserum stains the cytoplasm of epithelial cells in the rat and mouse lung and rat and human brain astrocytes. It stains human brain astrocytes in Parkinson's and Alzheimer's disease and the central core of some Lewy bodies in Parkinson's disease and dementia with Lewy bodies. Other tissues have not yet been tested. Biosensis recommends optimal dilutions/concentrations should be determined by the end user.
Specificity:	This antibody has been shown to be specific for Peroxiredoxin-6 protein.
Cross-reactivity:	Rat, human and mouse, other species have not yet been tested.
Form:	Lyophilised
Reconstitution:	Reconstitute in 100 uL of sterile water. Centrifuge to remove any insoluble material.
Storage:	After reconstitution keep aliquots at -20C for a higher stability, and at 2-8C with an appropriate antibacterial agent. Avoid repetitive freeze/thaw cycles. Glycerol (1:1) may be added for an

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additional stability.

Expiry Date: 12 months after purchase

Specific References:

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References:

1. Kim T.-S, et al. *J. Biol. Chem.* 272:2542-2550(1997).
2. Choi H.-J, et al. *Nat. Struct. Biol.* 5:400-406(1998).
3. Rush J, et al. *Nat. Biotechnol.* 23:94-101(2005).
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6. Kang S.W, et al. *J. Biol. Chem.* 273:6303-6311(1998).
7. Gevaert K, et al. *Nat. Biotechnol.* 21:566-569(2003).
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9. Nagase T, et al. *DNA Res.* 2:37-43(1995).
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