

Product name:	PRX III Rabbit Polyclonal Antibody
Cat number:	ABN16570
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from human PRX III. AA range:44-93
Reactivity:	Human,Mouse,Rat
Applications:	WB 1:500-1:2000,IHC 1:50-1:300,ICC/IF 1:50-1:200,ELISA 1:10000-1:20000,IP 1:50-1:200
Molecular Weight:	26kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

This gene encodes a mitochondrial protein with antioxidant function. The protein is similar to the C22 subunit of *Salmonella typhimurium* alkylhydroperoxide reductase, and it can rescue bacterial resistance to alkylhydroperoxide in *E. coli* that lack the C22 subunit. The human and mouse genes are highly conserved, and they map to the regions syntenic between mouse and human chromosomes. Sequence comparisons with recently cloned mammalian homologs suggest that these genes consist of a family that is responsible for the regulation of cellular proliferation, differentiation and antioxidant functions. This family member can protect cells from oxidative stress, and it can promote cell survival in prostate cancer. Alternative splicing of this gene results in multiple transcript variants. Related pseudogenes have been identified on chromosomes 1, 3, 13 and 22. [provided by RefSeq, Oct 2014], catalytic activity: $2 \text{ R}'\text{-SH} + \text{ROOH} = \text{R}'\text{-S-S-R}' + \text{H}_2\text{O} + \text{ROH}$., function: Involved in redox regulation of the cell. Protects radical-sensitive enzymes from oxidative damage by a radical-generating system. Acts synergistically with MAP3K13 to regulate the activation of NF-kappa-B in the cytosol., miscellaneous: Irreversibly inactivated by overoxidation of Cys-108 (to Cys-SO(3)H) upon oxidative stress., miscellaneous: The active site is the redox-active Cys-108 oxidized to Cys-SOH. Cys-SOH rapidly reacts with Cys-229-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., similarity: Belongs to the ahpC/TSA family., similarity: Contains 1 thioredoxin domain., subunit: Homodimer; disulfide-linked, upon oxidation (By similarity). Binds MAP3K13.,