



PRX III Polyclonal Antibody

Catalog No	YP-Ab-04103
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;IHC;IP;IF;ELISA
Gene Name	PRDX3
Immunogen	The antiserum was produced against synthesized peptide derived from human PRX III. AA range:44-93
Specificity	PRX III Polyclonal Antibody detects endogenous levels of PRX III protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB: 1/500 - 1/2000.IHC-p:1:50-300 IP 1:50-200 ELISA: 1/20000.. IF 1:50-200
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	peroxiredoxin 3;MER5;EC:1.11.1.24;AOP-1;AOP1;PRDX3;PRX III;Thioredoxin-dependent peroxide reductase mitochondrial;Thioredoxin-dependent peroxide reductase;mitochondrial;Antioxidant protein 1;HBC189;Peroxiredoxin III;Prx-III;Peroxiredoxin-3;Protein MER5 homolog
Observed Band	26kD
Calculated Molecular Weight	26kD
Cell Pathway	Mitochondrion . Cytoplasm . Early endosome . Localizes to early endosomes in a RPS6KC1-dependent manner. .
Tissue Specificity	Blood,Bone marrow,Brain,Cajal-Retzius cell,Cerebellum,Fetal brain cortex,Liver, Lung,Skeleta
Function	catalytic activity:2 R'-SH + ROOH = R'-S-S-R' + H(2)O + 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.,

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],

matters needing attention

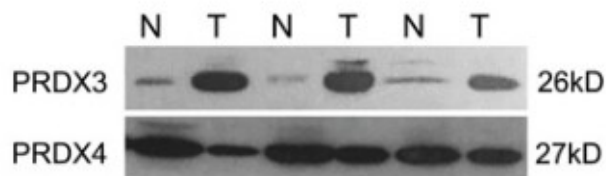
Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



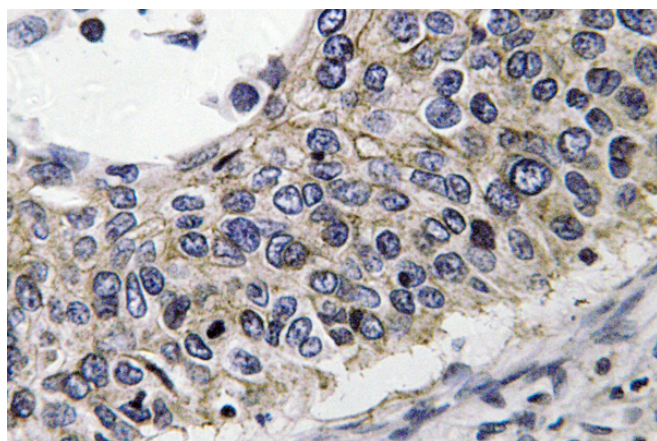
Products Images



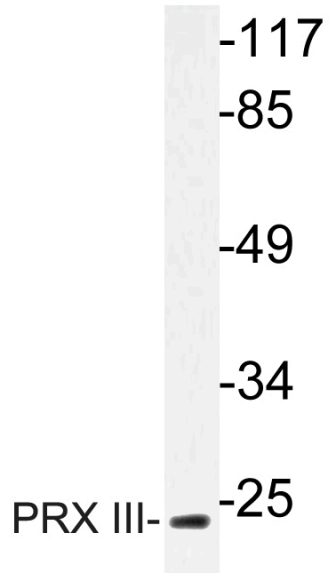
Zhang, Hua, et al. "Differential expression of peroxiredoxin 3 in laryngeal squamous cell carcinoma." *Oncotarget* 8.2 (2017): 3471.



Western Blot analysis of various cells using PRX III Polyclonal Antibody diluted at 1:1000



Immunohistochemistry analysis of PRX III antibody in paraffin-embedded human lung carcinoma tissue.



Western blot analysis of lysate from HeLa cells, using PRX III antibody.