

## Product datasheet for **AR09202PU-N**

### Peroxiredoxin-3 / PRDX3 (63-256) Human Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Peroxiredoxin-3 / PRDX3 (63-256) human recombinant protein, 0.1 mg
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	MPAVTQHAPY FKGTAVVNGE FKDLSLDDFK GKYLVLFFYP LDFTFVCPT E IVAFSDKANE FHDVNCEVVA VSVD SHFSL AWINTPRKNG GLGHMNIALL SDLTKQISR D YGVLL EG SGL ALRGLFIIDP NGVIK HLSVN DLPVGRSVEE TRLRVKAFQY VETHGEVCPA NWTPDSPTIK PSPAASKEYF QKVNQ
Predicted MW:	21.5 kDa
Concentration:	lot specific
Purity:	>95% by SDS - PAGE
Buffer:	Presentation State: Purified State: Liquid purified protein Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 10% glycerol
Bioactivity:	Specific: Approximately 82-83 pmole/min/μg. Enzymatic activity was confirmed by measuring the remaining peroxide after incubation of PRDX3 and peroxide for 20 min at room temperature. Specific activity is defined as the amount of hydroperoxide that 1ug of enzyme can reduce at 25°C for 1 minute.
Preparation:	Liquid purified protein
Applications:	Protocol: <b>Activity Assay:</b> 1. Prepare a 50ul reaction mix into a suitable container : The final concentrations are 1mM DTT, 0.03X PBS, 0.5% glycerol. 2. Add 5 ul of recombinant PRDX3 solution with various concentrations (0.25ug, 0.5ug) in 45 ul reaction buffer. 3. Incubate at 25°C for 2 minutes. 4. Add 5ul of 5 mM H <sub>2</sub> O <sub>2</sub> as a substrate and incubate the mixture for 20 min. 5. Add 20ul of 26 % trichloroacetic acid (TCA) to stop the reaction. 6. Add 30ul of Formation solution (10mM Ferrous ammonium sulfate (Fe(II)(NH <sub>4</sub> ) <sub>2</sub> (SO <sub>4</sub> ) <sub>2</sub> ), 2.5M KSCN) 7. Record the increase in A475nm.



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<b>Protein Description:</b>	Recombinant human Peroxiredoxin 3 protein was expressed in E.coli and purified by using conventional chromatography techniques.
<b>Storage:</b>	Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer. Avoid repeated freezing and thawing.
<b>Stability:</b>	Shelf life: one year from despatch.
<b>RefSeq:</b>	<a href="#">NP_001289201</a>
<b>Locus ID:</b>	10935
<b>UniProt ID:</b>	<a href="#">P30048</a>
<b>Cytogenetics:</b>	10q26.11
<b>Synonyms:</b>	AOP-1; AOP1; HBC189; MER5; PRO1748; prx-III; SP-22
<b>Summary:</b>	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]
<b>Protein Families:</b>	Transcription Factors

**Product images:**