

## Product datasheet for **AR09237PU-N**

### Peroxiredoxin-6 / PRDX6 (1-224, His-tag) Human Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Peroxiredoxin-6 / PRDX6 (1-224, His-tag) human recombinant protein, 0.1 mg
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	<u>MGSSHHHHHH SSGLVPRGSH</u> MPGGLLLGDV APNFEANTTV GRIRFHDFLG DSWGILFSHP RDFTPVCTTE LGRAAKLAPE FAKRNVKLIASIDSVEDHL AWSKDINAYN CEEPTEKLPF PIIDDRNREL AILLGMLDPA EKDEKGMPTV ARVVFVFGPD KKLKLSILYP ATTGRNFDEI LRVISLQLT AEKRVATPVD WKDGD SVMVL PTIP EEEAKK LFPKGVFTKE LPSGKKYLRY TPQP
Tag:	His-tag
Predicted MW:	27.1 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 20% Glycerol
Bioactivity:	Specific: Approximately 95-120 pmole/min/μg. Enzymatic activity was confirmed by measuring the remaining peroxide after incubation of PRDX6 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



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<b>Applications:</b>	<p>Protocol: <b>Activity Assay:</b></p> <ol style="list-style-type: none"><li>1. Prepare a 50ul reaction mix into a suitable container : The final concentrations are 1mM DTT, 0.03X PBS, 0.5% glycerol.</li><li>2. Add 5 ul of recombinant PRDX6 solution with various concentrations (0.25ug, 0.5ug) in 45 ul reaction buffer.</li><li>3. Incubate at 25°C for 2 minutes.</li><li>4. Add 5ul of 5 mM H<sub>2</sub>O<sub>2</sub> as a substrate and incubate the mixture for 20 min.</li><li>5. Add 20ul of 26 % trichloroacetic acid (TCA) to stop the reaction.</li><li>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)</li><li>7. Record the increase in A475nm.</li></ol>
<b>Protein Description:</b>	Recombinant human peroxiredoxin 6 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography.
<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_004896</a>
<b>Locus ID:</b>	9588
<b>UniProt ID:</b>	<a href="#">P30041</a>
<b>Cytogenetics:</b>	1q25.1
<b>Synonyms:</b>	PRDX-6, Prx6, Prx-6, 1-Cys PRX, aiPLA2, NSGPx, AOP2, AOP-2, KIAA0106
<b>Summary:</b>	The protein encoded by this gene is a member of the thiol-specific antioxidant protein family. This protein is a bifunctional enzyme with two distinct active sites. It is involved in redox regulation of the cell; it can reduce H <sub>2</sub> O <sub>2</sub> and short chain organic, fatty acid, and phospholipid hydroperoxides. It may play a role in the regulation of phospholipid turnover as well as in protection against oxidative injury. [provided by RefSeq, Jul 2008]
<b>Protein Families:</b>	<p>Protocol: <b>Activity Assay:</b></p> <ol style="list-style-type: none"><li>1. Prepare a 50ul reaction mix into a suitable container : The final concentrations are 1mM DTT, 0.03X PBS, 0.5% glycerol.</li><li>2. Add 5 ul of recombinant PRDX6 solution with various concentrations (0.25ug, 0.5ug) in 45 ul reaction buffer.</li><li>3. Incubate at 25°C for 2 minutes.</li><li>4. Add 5ul of 5 mM H<sub>2</sub>O<sub>2</sub> as a substrate and incubate the mixture for 20 min.</li><li>5. Add 20ul of 26 % trichloroacetic acid (TCA) to stop the reaction.</li><li>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)</li><li>7. Record the increase in A475nm.</li></ol>
<b>Protein Pathways:</b>	Metabolic pathways, Methane metabolism, Phenylalanine metabolism

## Product images:

