

---

## Product Data Sheet

---

Product Name: PRDX4 Human  
 Cat. No.: GP22156  
 Batch No.: 1

### Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	EC 1.11.1.15; AOE37-2; Peroxiredoxin-IV; Prx-IV; Thioredoxin peroxidase A0372; Thioredoxin-dependent peroxide reductase A0372; Antioxidant enzyme AOE372.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MWETEERPRT REECHFYAG GQVYPGEASR VSVADHSLHL SKAKISKAP YWEGTAVIDG EFKELKLDY RGKYLVEFFY PLDFTFVCPT EIIAFGDRLE EFRSINTEVV ACSVDSQFTH LAWINTPRRQ GGLGPIRIPL LSDLTHQISK DYGVYLEDSE HTLRGLFIID DKGILRQITL NDLPVGRSVD ETLRLVQAFQ YTDKHGEVCP AGWKPGSETI IPDPAGKCLKY FDKLN.		
Formulation	PRDX4 Human solution containing 20mM Tris-HCl pH-8 & 10% glycerol.		

### Introduction

PRDX4 is an antioxidant enzyme that is part of the peroxiredoxin family. PRDX4 is localized to the cytoplasm. PRDX4 reduces hydrogen peroxide and alkyl hydroperoxides to water and alcohol with the use of reducing equivalents derived from thiol-containing donor molecules. PRDX4 has a regulatory part in the activation of the transcription factor NF-kappaB. PRDX4 participates in redox regulation of the cell. PRDX4 regulates the activation of NF-kappa-B in the cytosol by a modulation of I-kappa-B-alpha phosphorylation.

### Biological Activity

Specific activity: approximately 230-310 pmole/min/?g. Enzymatic activity was confirmed by measuring the remaining peroxide after incubation of PRDX4 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.

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

---

## Product Data Sheet

---

### Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

### Background

PRDX4 Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 255 amino acids (38-271 a.a.) and having a molecular mass of 28.8kDa. PRDX4 protein is fused to a 20 amino acid His-Tag at N-terminus and purified by standard chromatography.

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA