

## Recombinant Human Peroxiredoxin 3, T7-tagged

Cat. No. PRDX3-822H Lot. No. (See product label)

### SPECIFICATION

#### Product Overview

Recombinant PRDX3 protein, fused to T7-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques, 27693Da (256aa).

#### Species

Human

#### Source

E.coli

#### Description

Thioredoxin-dependent peroxide reductase, mitochondrial is an enzyme that in humans is encoded by the PRDX3 gene. This gene encodes a protein with antioxidant function and is localized in the mitochondrion. This gene shows significant nucleotide sequence similarity to the gene coding for the C22 subunit of Salmonella typhimurium alkylhydroperoxide reductase. Expression of this gene product in E. coli deficient in the C22-subunit gene rescued resistance of the bacteria to alkylhydroperoxide. 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 homologues suggest that these genes consist of a family that is responsible for regulation of cellular proliferation, differentiation, and antioxidant functions. Two transcript variants encoding two different isoforms have been found for this gene.

#### Sequences of amino acids

MAAAVGRLLR ASVARHVSAI PWGISATAAL RPAACGRTSL TNLCSGSSQ  
AKLFSTSSSC HAPAVTQHAP YFKGTAVVNG EFKDLSLDDF KGKYLVLFFY  
PLDFTFVCPT EIVAFSDKAN EFHDVNCEVV AVSVDSHFSH LAWINTPRKN  
GGLGHMNIAL LSDLTKQISR DYGVLLGSG LALRGLFIID PNGVIKHLVS  
NDLPVGRSVE ETLRLVKAFQ YVETHGEVCP ANWTPDSPTT KPSPAASKEY

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	FQKVNQ
<b>Formulation</b>	10 mM Tris. pH 8.0. 0.1% Triton X-100. 0.002% NaN <sub>3</sub> . 10mM DTT
<b>Purity</b>	95% by SDS - PAGE
<b>Applications</b>	MS. SDS
<b>GENE INFORMATION</b>	
<b>Gene Name</b>	PRDX3 peroxiredoxin 3 [Homo sapiens]
<b>Synonyms</b>	PRDX3; MER5; AOP-1; AOP1; MGC104387; MGC24293; PRO1748; SP-22; HBC 189; peroxiredoxin 3; Antioxidant protein 1; peroxiredoxin-3; thioredoxin-dependent peroxide reductase, mitochondrial; prx-III; SP-22; Peroxiredoxin III; EC 1.11.1.15; Protein MER5 homolog; Prx-III; Peroxiredoxin-3
<b>Gene ID</b>	10935
<b>mRNA Refseq</b>	NM_006793
<b>Protein Refseq</b>	NP_006784
<b>MIM</b>	604769
<b>UniProt ID</b>	P30048
<b>Chromosome Location</b>	10q25-q26
<b>Function</b>	Alkyl hydroperoxide reductase activity; caspase inhibitor activity; identical protein

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binding; kinase binding; oxidoreductase activity; peroxidase activity; peroxiredoxin activity; protein C-terminus binding; protein binding; protein kinase binding

PDBrendering based  
on 1zye. Available  
structures:1zye



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