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## Recombinant human Peroxiredoxin 3/PRDX3 protein

Catalog Number: ATGP0321

## **PRODUCT INFORMATION**

## **Expression system**

E.coli

#### **Domain**

63-256aa

#### UniProt No.

P30048

#### **NCBI Accession No.**

NP 006784

#### **Alternative Names**

Thioredoxin-dependent peroxide reductase mitochondrial, Thioredoxin-dependent peroxide reductase mitochondrial, PRDX3, PRX III, Antioxidant protein 1 (AOP-1), Peroxiredoxin 3, Thioredoxin-dependent peroxide reductase, mitochondrial Antioxidant Protein 1, AOP1, MER5, PRX3, SP22, Peroxiredoxin-3

## **PRODUCT SPECIFICATION**

## **Molecular Weight**

21.5 kDa (195aa) confirmed by MALDI-TOF

### Concentration

1mg/ml (determined by Bradford assay)

## **Formulation**

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol

## **Purity**

> 95% by SDS-PAGE

## **Biological Activity**

Specific activity is >2,000pmol/min/ug. Enzymatic activity is defined as the amount of hydroperoxide that 1ug of enzyme can reduce at 25C for 1minute.

### Tag

Non-Tagged

#### **Application**

SDS-PAGE, Enzyme Activity

## **Storage Condition**

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## **BACKGROUND**

### **Description**

Peroxiredoxin 3, also known as PRDX3, is a member of the peroxiredoxin family of antioxidant enzymes, which



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reduce hydrogen peroxide and alkyl hydroperoxides. Peroxiredoxin 3 is specifically localized in mitochondria and believed to play important roles in the regulation of cellular redox status by serving as a primary line of defense against H2O2 produced during respiration. Recombinant human Peroxiredoxin 3 protein was expressed in E. coli and purified by using conventional chromatography techniques.

## **Amino acid Sequence**

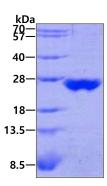
MPAVTQHAPY FKGTAVVNGE FKDLSLDDFK GKYLVLFFYP LDFTFVCPTE IVAFSDKANE FHDVNCEVVA VSVDSHFSHL AWINTPRKNG GLGHMNIALL SDLTKQISRD YGVLLEGSGL ALRGLFIIDP NGVIKHLSVN DLPVGRSVEE TLRLVKAFQY VETHGEVCPA NWTPDSPTIK PSPAASKEYF QKVNQ

#### **General References**

Cox AG., et al. (2009). Biochemistry. 48(27):6495-501 Rhee SG., et al. (2005). Free Radic Biol Med. 38(12):1543-52

## **DATA**

#### **SDS-PAGE**



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

