

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

Enzyme Activity, SDS-PAGE

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

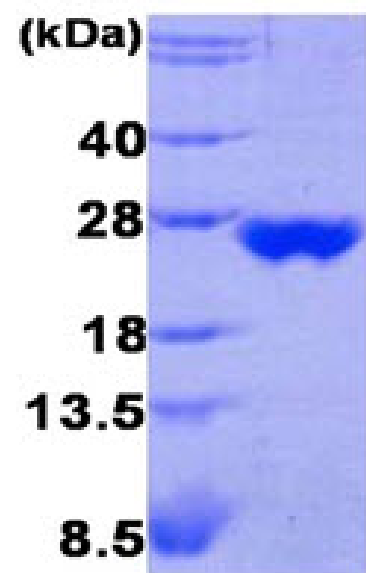
MPAVTQHAPY FKGTAVVNGE FKDLSLDDFK GKYLVLFFYP LDFTFVCPT EIVAFSDKANE FHDVNCEVVA VSVDSHFSL
AWINTPRKNG GLGHMNIALL SDLTKQISRD YGVLLLEGSL ALRGLFIIDP NGVIKHLNVN DLPVGRSVEE TLRLVKAFQY
VETHGEVCPA NWTPDSPTIK PSPAASKEYF QKVNQ

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.

15% SDS-PAGE (3ug)