

Recombinant human Peroxiredoxin 4/PRDX4 protein

Catalog Number: ATGP0513

PRODUCT INFORMATION

Expression system

E.coli

Domain

38-271aa

UniProt No.

Q13162

NCBI Accession No.

NP_006397

Alternative Names

Antioxidant enzyme AOE372, AOE37-2, Peroxiredoxin IV, Prx-IV, Thioredoxin peroxidase A0372, Thioredoxin-dependent peroxide reductase A0372, Thioredoxin-dependent peroxiredoxin 4

PRODUCT SPECIFICATION

Molecular Weight

28.8 kDa (255aa) 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

> 90% 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

His-Tag

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

PRDX4 is an antioxidant enzyme and belongs to the peroxiredoxin (Prdx, Prx, or TrxPx) family. This protein is localized to the cytoplasm. Peroxidases of the peroxiredoxin family reduce hydrogen peroxide and alkyl

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hydroperoxides to water and alcohol with the use of reducing equivalents derived from thiol-containing donor molecules. This protein regulates the of the transcription factor NF-kappaB in the cytosol by a modulation of I-kappa-B-alpha phosphorylation. The ubiquitously expressed peroxiredoxins have also been shown to play a role in apoptosis and cell differentiation. Recombinant human PRDX4, fused to His-tag at N-terminus, was expressed in *E. coli* and purified by conventional chromatography techniques.

Amino acid Sequence

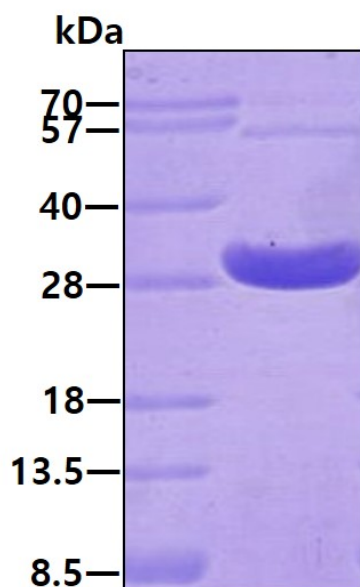
<MGSSHHHHHH SSGLVPRGSH> MWETEERPT REECHFYAG GQVYPGEASR VSVADHSLHL SKAKISKAP
YWEGTAVIDG EFKEKLTDY RGKYLVEFFY PLDFTFVCPT EIIAFGDRLE EFRSINTEVV ACSVDSQFTH LAWINTPRRQ
GGLGPIRIPL LSDLTHQISK DYGVYLEDSG HTLRGLFIID DKGILRQITL NDLPVGRSVD ETLRLVQAFQ YTDKHGEVCP
AGWKPGSETI IPDPAGKLKY FDKLN

General References

Jin D.-Y., et al. (1997) *J. Biol. Chem.* 272:30952-30961.
Wang HQ., et al. (2009) *FEBS Lett.* 583(9):1511-5.

DATA

SDS-PAGE



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