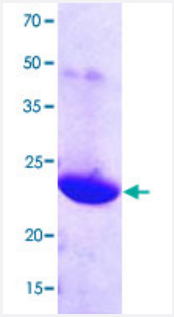
Bioactive Full-Length

PRDX1 (Human) Recombinant Protein

Catalog # P3465 Size 100 ug

Applications



Specification

Product Description	Human PRDX1 (NP_002565, 1 a.a. - 199 a.a.) full-length recombinant protein with His tag expressed in *Escherichia coli*.
Sequence	MGSSHHHHHHSSGLVPRGSHMSSGNAKIGHPAPNFKATAVMPDGQFKDISLSDYKGKYVVFFFY PLDFTFVCPTEIIAFSDRAEEFKKLNCQVIGASVDSHFCHLAWVNTPKKQGGLGPMNIPLVSDPKR TIAQDYGVLKADEGISFRGLFIIDDKGILRQITVNDLPVGRSVDETLRLVQAFQFTDKHGEVCPAGW KPGSDTIKPDVQKSKEYFSKQK
Host	Escherichia coli
Theoretical MW (kDa)	24
Form	Liquid
Preparation Method	*Escherichia coli* expression system
Purification	Conventional Chromatography
Concentration	1 mg/mL
Purity	> 90% by SDS-PAGE
Activity	Specific activity is > 2,000 pmol/min/ug. Enzymatic activity is defined as the amount of hydroperoxide that 1ug of enzyme can reduce at 25°C for minute.

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Quality Control Testing	Loading 3 ug protein in 15% SDS-PAGE
Storage Buffer	In 20 mM Tris, pH 7.5 (20% glycerol).
Storage Instruction	Store at 2°C to 8°C for 1 week. For long term storage, aliquot and store at -20°C to -80°C. Aliquot to avoid repeated freezing and thawing.

Applications

- Functional Study
- SDS-PAGE

Gene Info — PRDX1

Entrez GeneID	5052
Protein Accession#	NP_002565
Gene Name	PRDX1
Gene Alias	MSP23, NKEFA, PAG, PAGA, PAGB, PRX1, PRXI, TDPX2
Gene Description	peroxiredoxin 1
Omim ID	176763
Gene Ontology	Hyperlink
Gene Summary	This gene encodes a member of the peroxiredoxin family of antioxidant enzymes, which reduce hydrogen peroxide and alkyl hydroperoxides. The encoded protein may play an antioxidant protective role in cells, and may contribute to the antiviral activity of CD8(+) T-cells. This protein may have a proliferative effect and play a role in cancer development or progression. Three transcript variants encoding the same protein have been identified for this gene. [provided by RefSeq
Other Designations	OTTHUMP00000009234|natural killer-enhancing factor A|proliferation-associated gene A|thioredoxin-dependent peroxide reductase 2

Publication Reference

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- Peroxiredoxin 1 inhibits tumorigenesis by activating the NLRP3/GSDMD pathway to induce pyroptosis of colorectal cancer cells.

  Ying He, Jing Liu, Ning Zhou, Ling-Xiang Xie, Yong-Fang Jiang, Chun-Lan Chen.

  World Journal of Gastroenterology 2025 Sep; 31(36):111557.

  Application: Stimulation, Human, HCT116, RKO, SW480 cell lines

Disease

- Alzheimer disease
- Cognition

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