

PRDX1 Protein, Human (His)

Cat. No.:	HY-P71231
Synonyms:	Peroxiredoxin-1; Natural killer cell-enhancing factor A; NKEF-A; Proliferation-associated gene protein; PAG; Thioredoxin peroxidase 2; Thioredoxin-dependent peroxide reductase 2; PAGA; PAGB; TDPX2
Species:	Human
Source:	E. coli
Accession:	Q06830 (M1-K199)
Gene ID:	5052
Molecular Weight:	Approximately 27.0 kDa

PROPERTIES

AA Sequence	<p>M S S G N A K I G H P A P N F K A T A V M P D G Q F K D I S L S D Y K G K Y V V</p> <p>F F F Y P L D F T F V C P T E I I A F S D R A E E F K K L N C Q V I G A S V D S</p> <p>H F C H L A W V N T P K K Q G G L G P M N I P L V S D P K R T I A Q D Y G V L K</p> <p>A D E G I S F R G L F I I D D K G I L R Q I T V N D L P V G R S V D E T L R L V</p> <p>Q A F Q F T D K H G E V C P A G W K P G S D T I K P D V Q K S K E Y F S K Q K</p>
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Solution.
Formulation	Supplied as a 0.2 µm filtered solution of PBS, 10% Glycerol, 0.1 mM DTT, pH 6.0.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	<p>Peroxiredoxin-1 (PRDX1), a thiol-specific peroxidase, serves as a catalytic agent in the reduction of hydrogen peroxide and organic hydroperoxides, converting them into water and alcohols, respectively. Its crucial role in cellular protection against oxidative stress involves detoxifying peroxides and acting as a sensor for hydrogen peroxide-mediated signaling events. PRDX1 may also contribute to the signaling cascades initiated by growth factors and tumor necrosis factor-alpha, potentially influencing intracellular H₂O₂ concentrations. Notably, PRDX1 exhibits the ability to reduce an intramolecular disulfide bond in GDPD5, modulating GDPD5's capacity to drive postmitotic motor neuron differentiation. These</p>
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multifaceted functions underscore PRDX1's intricate involvement in redox signaling and cellular differentiation processes.

Caution: Product has not been fully validated for medical applications. For research use only.

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