PRDX5/Peroxiredoxin-5 Protein, Human (HEK293, His)

Cat. No.:	HY-P71146
Synonyms:	Peroxiredoxin-5; PRDX5; Alu corepressor 1; Antioxidant enzyme B166; AOEB166; Liver tissue 2D-page spot 71B; PLP; Peroxiredoxin V; Prx-V; Peroxisomal antioxidant enzyme; TPx type VI; Thioredoxin peroxidase PMP20; Thioredoxin reductase
Species:	Human
Source:	HEK293
Accession:	P30044 (M53-L214)
Gene ID:	25824
Molecular Weight:	Approximately 17.0 kDa

PROPERTIES

AA Sequence	M A P I K V G D A I P A V E V F E G E P G N K V N L A E L F K G K K G V L F G V P G A F T P G C S K T H L P G F V E Q A E A L K A K G V Q V V A C L S V N D A F V T G E W G R A H K A E G K V R L L A D P T G A F G K E T D L L L D D S L V S I F G N R R L K R F S M V V Q D G I V K A L N V E P D G T G L T C S L A P N I I S Q L
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US;may vary elsewhere.

DESCRIPTION

Background	PRDX5, also known as Peroxiredoxin-5, serves as a thiol-specific peroxidase, facilitating the reduction of hydrogen peroxide and organic hydroperoxides to water and alcohols, respectively. This enzymatic activity is integral to the cellular defense against oxidative stress, functioning as a protective mechanism by detoxifying peroxides. Beyond its role in peroxide reduction, PRDX5 acts as a sensor for hydrogen peroxide-mediated signaling events, highlighting its involvement in cellular signaling pathways associated with oxidative stress responses. The multifaceted functions of PRDX5 underscore its

	significance in maintaining cellular homeostasis and orchestrating adaptive responses to oxidative challenges.

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