PRDX1
Recombinant Human Peroxiredoxin-1 His

Catalog No.	CS464A	**Quantity:**	5 µg
	CS464B		20 µg
	CS464C		1 mg

Alternate Names: Peroxiredoxin-1, Thioredoxin peroxidase 2, Thioredoxin-dependent peroxide reductase 2, Proliferation-associated gene protein, Natural killer cell-enhancing factor A, NKEF-A, PRDX1, TDPX2, PRDX-1, PAG, PAGA, PRX1, PAGB, PRXI, MSP23, NKEFA.

Description: PRDX1 is part of the peroxiredoxin family of antioxidant enzymes, which reduce hydrogen peroxide and alkyl hydroperoxides. PRDX1 is an important protector of red blood cells against reactive oxygen species and in tumor prevention.
PRDX1 is antioxidant protective in cells, and contributes to the antiviral activity of CD8+ T-cells. PRDX1 has a proliferative effect and is involved in cancer development or progression.
Peroxiredoxin-1 is plays a role in redox regulation of the cell. Peroxiredoxin decreases peroxides with reducing equivalents provided through the thioredoxin system but not from glutaredoxin. Peroxiredoxin is involved in eliminating peroxides generated during metabolism. Peroxiredoxin participates in the signaling cascades of growth factors and TNF-alpha by regulating the intracellular concentrations of H_2O_2.

Recombinant Human Peroxiredoxin-1 is a single, non-glycosylated, polypeptide chain (1 -199) containing 219 aa fused to a 20 aa His tag at the N-terminus.

Gene ID: 5052

Source: *E. coli*

Molecular Mass: 24 kDa

Formulation: Sterile Filtered colorless solution containing 20 mM Tris-HCl, pH 7.5, + 20% glycerol.

Purity: >90.0% as determined by SDS-PAGE.

Specific Activity: The specific activity was approximately 600-670 pmole/min/µg. The enzymatic activity was confirmed by measuring the remaining peroxide after incubation of PRDX1 and peroxide for 20 min at room temperature. Specific activity is defined as the amount of hydroperoxide that 1 µg of enzyme can reduce at 25°C for 1 min.

Amino Acid Sequence: **MGSSHHHHHH SSGLVPRGSH** MSSGNAKIGH PAPNFKATAV MPDGQFKDIS LSDYKGKYVV FFFYPLDFTF VCPTEIIAFS DRAEEFKKLN CQVIGASVDS HFCHLAWVNT PKKQGGLGPM NIPLVSDPKR TIAQDYGVLK ADEGISFRGL FIIDDKGILR QITVNDLPVG RSVDETLRLV QAFQFTDKHG EVCPAGWKPG SDTIKPDVQK SKEYFSKQK

Storage & Stability: Store at 2-4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). **Avoid repeated freeze-thaw cycles.**

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Cell Sciences®
480 Neponset Street
Bldg 12A
Canton, MA 02021

Toll Free: 888-769-1246
Phone: 781-828-0610
Fax: 781-828-0542

E-mail: info@cellsciences.com
Website: www.cellsciences.com