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# California Bioscience

## Product Datasheet

| | |
|---|---|
| **Product Name** | Peroxiredoxin-1 Human Recombinant |
| **Cata No** | CB501381 |
| **Source** | *Escherichia Coli.* |
| **Synonyms** | Peroxiredoxin-1, EC 1.11.1.15, 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(2)o(2).
Peroxiredoxin Human Recombinant fused with His tag at N-terminus produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 219 amino acids and having a molecular mass of 24 kDa. The Peroxiredoxin is purified by proprietary chromatographic techniques.

### Physical Appearance

Sterile Filtered colorless solution.

### Purity

Greater than 90.0% as determined by:
(a) Analysis by RP-HPLC.
(b) Analysis by SDS-PAGE.

### Formulation

The Peroxiredoxin solution contains 20mM Tris pH-7.5, & 20% glycerol.

### Stability

Peroxiredoxin although stable 4°C for 4 weeks, should be stored desiccated below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).
**Please prevent freeze-thaw cycles.**

### Sequence

MGSSHHHHHH SSGLVPRGSH MSSGNAKIGH PAPNFKATAV MPDGQFKDIS LSDYKGKYVV FFFYPLDFTF VCPTEIIAFS DRAEEFKKLN CQVIGASVDS HFCHLAWVNT PKKQGGLGPM NIPLVSDPKR TIAQDYGVLK ADEGISFRGL FIIDDKGILR QITVNDLPVG RSVDETLRLV QAFQFTDKHG EVCPAGWKPG SDTIKPDVQK SKEYFSKQK.

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