

## 32-2726: PRDX1 Recombinant Protein

### Alternative Name :

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, NKEF

### Description

Source : Escherichia Coli. Peroxiredoxin Human Recombinant fused with a 20 amino acid His tag at N-terminus produced in E.Coli is a single, non-glycosylated, polypeptide chain (1-199) containing 219 amino acids and having a molecular mass of 24 kDa. The Peroxiredoxin is purified by proprietary chromatographic techniques. 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 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  $H_2O_2$ .

### Product Info

**Amount :** 20  $\mu$ g

**Purification :** Greater than 90.0% as determined by SDS-PAGE.

**Content :** The Peroxiredoxin solution contains 20mM Tris-HCl pH-7.5, & 20% glycerol.

**Storage condition :** Store at 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 multiple freeze-thaw cycles.

**Amino Acid :** MGSSHHHHHH SGLVPRGSH MSSGNAKIGH PPNFKATAV MPDQFKDIS LSDYKGYV VFFYPLDFTF VCPTEIIAFS DRAEEFKLN CQVIGASVDS HFCHLAWVNT PKKQGGLGPM NIPLVSDPKR TIAQDYGV LK ADEGISFRGL FIIDDKGILR QITVNDLPVG RSVDETLRLV QAFQFTDKHG EVCPAGWKPG SDTIKPDVQK SKEYFSKQK.

### Application Note

The specific activity was found to be approximately 600-670 pmole/min/ $\mu$ g.

