



# Recombinant Protein Technical Manual

## Recombinant Human Peroxiredoxin 1/PRDX1 Protein (His Tag) RPES1683

### Product Data:

**Product SKU:** RPES1683

**Size:** 10µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** Q06830

### Protein Information:

**Molecular Mass:** 25.3 kDa

**AP Molecular Mass:** 26 kDa

**Tag:** N,C-6His

**Bio-activity:**

**Purity:** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.

**Shipping:** This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < -20°C.

**Formulation:** Supplied as a 0.2 µm filtered solution of PBS, 10% glycerol, 0.1mM DTT, pH 6.0.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Peroxiredoxin; Natural killer cell-enhancing factor A; NKEF-A; Proliferation-associated gene protein; PAG; Thioredoxin peroxidase 2; Thioredoxin-dependent peroxide reductase 2; PAGA; PAGB; TDPX2; MSP23; NKEF-A; NKEFA; PAG; PRX1; PRXI; TDPX2

## Immunogen Information:

**Sequence:** Met 1-Lys199

## Background:

Peroxiredoxin(PRDX1) contains 1 thioredoxin domain and belongs to the AhpC/TSA family. PRDX1 constitutively expressed in most human cells and it is induced to higher levels upon serum stimulation in untransformed and transformed cells. PRDX1 is involved in redox regulation of the cell. It reduces peroxides with reducing equivalents provided through the thioredoxin system but not from glutaredoxin and play an important role in eliminating peroxides generated during metabolism. PRDX1 might participate in the signaling cascades of growth factors and tumor necrosis factor-alpha by regulating the intracellular concentrations of H<sub>2</sub>O<sub>2</sub>. It reduces an intramolecular disulfide bond in GDPD5 that gates the ability to GDPD5 to drive postmitotic motor neuron differentiation. It may contribute to the antiviral activity of CD8(+) T-cells and have a proliferative effect in cancer development or progression.