



Recombinant Protein Technical Manual

**Recombinant Human Peroxiredoxin 2/PRDX2
Protein (His Tag)(Active)**
RPES2344

Product Data:

Product SKU: RPES2344

Size: 20µg

Species: Human

Expression host: Baculovirus-Insect Cells

Uniprot: P32119

Protein Information:

Molecular Mass: 24 kDa

AP Molecular Mass: 27 kDa

Tag: N-His

Bio-activity: Measured by its ability to reduce H₂O₂. The specific activity is >300 pmoles/min/µg.

Purity: > 92 % as determined by reducing SDS-PAGE.

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

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile 50mM Tris, 100mM NaCl, pH 8.0, 10% gly

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

Application:

Synonyms: HEL-S-2a;NKEF-B;NKEFB;PRP;PRX2;PRXII;PTX1;TDPX1;TPX1;TSA

Immunogen Information:

Sequence: Met 1-Asn 198

Background:

Peroxiredoxin-2, also known as Natural killer cell-enhancing factor B, NKEF-B, Thiol-specific antioxidant protein, Thioredoxin peroxidase 1, Thioredoxin-dependent peroxide reductase 1, PRDX2 and NKEFB, is a cytoplasm protein which belongs to the ahpC / TSA family. Peroxiredoxin-2 / PRDX2 contains one thioredoxin domain. Peroxiredoxin-2 / PRDX2 is involved in redox regulation of the cell. It reduces peroxides with reducing equivalents provided through the thioredoxin system. Peroxiredoxin-2 / PRDX2 is not able to receive electrons from glutaredoxin. It may play an important role in eliminating peroxides generated during metabolism. Peroxiredoxin-2 / PRDX2 might participate in the signaling cascades of growth factors and tumor necrosis factor-alpha by regulating the intracellular concentrations of H₂O₂. The Peroxiredoxins / Prx are a family of peroxidases that can reduce H₂O₂ using an electron from thioredoxin (Trx) or other substances. The mammalian Peroxiredoxins / Prx family is divided into six groups (PRDX1, PRDX2, PRDX3, PRDX4, PRDX5, PRDX6) on the basis of homology of amino acid sequences. They are located in the cytosol and play a role in the cell signaling system. All six mammalian peroxiredoxins are expressed in the lung. Peroxiredoxins / Prx is overexpressed in breast cancer tissues to a great extent suggesting that Peroxiredoxins / Prx has a proliferative effect and may be related to cancer development or progression.