



# Recombinant Protein Technical Manual

## Recombinant Mouse Peroxiredoxin 5/PRDX5 Protein (His Tag)(Active) RPES1309

### Product Data:

**Product SKU:** RPES1309

**Size:** 50µg

**Species:** Mouse

**Expression host:** E. coli

**Uniprot:** P99029

### Protein Information:

**Molecular Mass:** 18.5 kDa

**AP Molecular Mass:** 18.5 kDa

**Tag:** N-His

**Bio-activity:** Measured by its ability to reduce H<sub>2</sub>O<sub>2</sub>. The specific activity is > 100 pmoles/min/µg.

**Purity:** > 92 % as determined by SDS-PAGE

**Endotoxin:** Please contact us for more information.

**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 PBS, pH 7.5

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

**Application:**

**Synonyms:** AOEB166;AOPP;Pmp20;Prdx6;PrxV

## Immunogen Information:

**Sequence:** Met 49-Leu 210

## Background:

Peroxiredoxin-5, also known as Alu corepressor 1, Antioxidant enzyme B166, Liver tissue 2D-page spot 71B, Peroxisomal antioxidant enzyme, Thioredoxin peroxidase PMP20, Thioredoxin reductase, PRDX5 and ACR1, is cytoplasm protein which belongs to the peroxiredoxin 2 family. Peroxiredoxin-5 / PRDX5 reduces hydrogen peroxide and alkyl hydroperoxides with reducing equivalents provided through the thioredoxin system. Peroxiredoxin-5 / PRDX5 is involved in intracellular redox signaling. The Peroxiredoxins / Prx are a family of 25 kDa peroxidases that can reduce H<sub>2</sub>O<sub>2</sub> 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.