



# Recombinant Protein Technical Manual

**Recombinant Human Peroxiredoxin 5/PRDX5  
Protein (His Tag)**  
RPES1742

## Product Data:

**Product SKU:** RPES1742

**Size:** 10µg

**Species:** Human

**Expression host:** Human Cells

**Uniprot:** P30044

## Protein Information:

**Molecular Mass:** 17.9 kDa

**AP Molecular Mass:** 17 kDa

**Tag:** N-6His

**Bio-activity:**

**Purity:** > 95 % 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 a 0.2 µm filtered solution of PBS, pH 7.4.

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

**Application:**

**Synonyms:** Peroxiredoxin-5; PRDX5; Alu corepressor 1; Antioxidant enzyme B166; AOEB166; Liver tissue 2D-page spot 71B; PLP; Peroxiredoxin V; Prx-V; Peroxisomal antioxidant enzyme; TPx type VI; Thioredoxin peroxidase PMP20; Thioredoxin reductase

## Immunogen Information:

**Sequence:** Met53-Leu214

## Background:

Peroxisomes are essential organelles that participate in multiple important metabolic processes, including the  $\beta$ -oxidation of fatty acids, plasmalogen synthesis, and the metabolism of reactive oxygen species (ROS). Peroxiredoxins is overexpressed in breast cancer tissues to a great extent suggesting that they has a proliferative effect and may be related to cancer development or progression. Peroxiredoxin 5 (PRDX5) is a thioredoxin peroxidase that belongs to the atypical 2-Cys class of the TSA/ahpC family of peroxiredoxins. PRDX5 is a widely expressed mitochondrial antioxidant enzyme that reduces hydrogen peroxide, alkyl hydroperoxides, and peroxynitrite. In human cells, this enzyme is present in the cytosol, mitochondria, peroxisomes, and nucleus.