

## Recombinant Human Peroxiredoxin 5/PRDX5 Protein (His Tag)

**Catalog Number:** PKSH032885

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

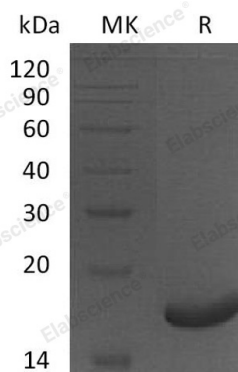
### Description

|                      |   |
|----------------------|---|
| <b>Species</b>       | Human   |
| <b>Source</b>        | HEK293 Cells-derived Human Peroxiredoxin 5;PRDX5 protein Met53-Leu214, with an N-terminal His |
| <b>Calculated MW</b> | 17.9 kDa  |
| <b>Observed MW</b>   | 17 kDa  |
| <b>Accession</b>     | P30044  |
| <b>Bio-activity</b>  | Not validated for activity  |

### Properties

|                       |  |
|-----------------------|--|
| <b>Purity</b>         | > 95 % as determined by reducing SDS-PAGE.   |
| <b>Endotoxin</b>      | < 1.0 EU per µg of the protein as determined by the LAL method.  |
| <b>Storage</b>        | Generally, 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.            |
| <b>Shipping</b>       | This product is provided as lyophilized powder which is shipped with ice packs.  |
| <b>Formulation</b>    | Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.<br>Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.<br>Please refer to the specific buffer information in the printed manual. |
| <b>Reconstitution</b> | Please refer to the printed manual for detailed information.   |

### Data



> 95 % as determined by reducing SDS-PAGE.

### 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.

### For Research Use Only

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