

## Recombinant Mouse Peroxiredoxin 1/PRDX1 Protein (His Tag)

**Catalog Number:** PKSM040618

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

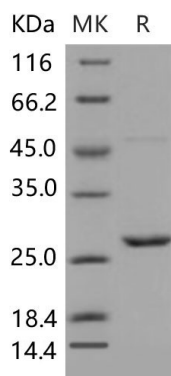
### Description

<b>Species</b>	Mouse
<b>Source</b>	E.coli-derived Mouse Peroxiredoxin 1/PRDX1 protein Met 1-Lys 199, with an C-terminal His
<b>Calculated MW</b>	23.5 kDa
<b>Observed MW</b>	27 kDa
<b>Accession</b>	P35700
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 85 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	Please contact us for more information.
<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 sterile PBS, 10% glycerol, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



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### Background

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Peroxiredoxin-1, also known as Thioredoxin peroxidase 2, Natural killer cell-enhancing factor A, PRDX1, and PAGA, is a member of the ahpC/TSA family. Peroxiredoxin-1 is constitutively expressed in most human cells. It is induced to higher levels upon serum stimulation in untransformed and transformed cells. Peroxiredoxins (PRDXs) are a family of antioxidant enzymes that are also known as scavengers of peroxide in mammalian cells. The overexpression of Peroxiredoxin-1, which is one of the peroxiredoxins that is a ubiquitously expressed protein, was related to a poor prognosis in several types of human cancers. Peroxiredoxin-1 is involved in redox regulation of the cell. It reduces peroxides with reducing equivalents provided through the thioredoxin system but not from glutaredoxin and may play an important role in eliminating peroxides generated during metabolism. Peroxiredoxin-1 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>. The reduced Peroxiredoxin-1 expression is an important factor in esophageal squamous cancer progression and could serve as a useful prognostic marker.

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