Recombinant Human Peroxiredoxin 2/PRDX2 Protein (His Tag)

Catalog Number: PKSH031179

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

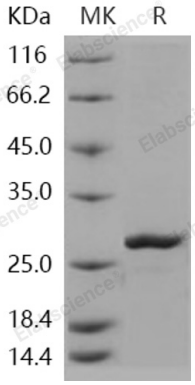
Description

Species	Human
Source	Baculovirus-Insect Cells-derived Human Peroxiredoxin 2/PRDX2 protein Met 1-Asn 198, with an N-terminal His
Calculated MW	24 kDa
Observed MW	27 kDa
Accession	P32119
Bio-activity	Measured by its ability to reduce H2O2. The specific activity is > 300 pmoles/min/μg.

Properties

Purity	> 92% as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	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.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 50 mM Tris, 100 mM NaCl, pH 8.0, 10% glycerol 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.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 92 % as determined by reducing SDS-PAGE.

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 theahpC/TSA family. Peroxiredoxin-2/PRDX2 contains onethioredoxin 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.

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