Proteins



Peroxiredoxin-2/PRDX2 Protein, Human (His)

Cat. No.: HY-P71464

Synonyms: Epididymis secretory sperm binding protein Li 2a; HEL S 2a; MGC4104; Natural killer cell

> enhancing factor B; Natural killer cell-enhancing factor B; Natural Killer Enhancing Factor B; NKEF B; NKEF-B; NKEFB; Peroxiredoxin 2; Peroxiredoxin-2; PRDX 2; PRDX2; PrP; PRX2; PRXII; PTX1; TDPX1; Thiol Specific Antioxidant 1; Thiol specific antioxidant protein; Thiol-specific antioxidant protein; Thioredoxin Dependent Peroxide Reductase 1; Thioredoxin peroxidase 1;

Thioredoxin-dependent peroxide reductase 1; Torin; TPX1; TSA

Species: Human E. coli Source:

Accession: P32119 (2A-198N)

Gene ID: 7001

Molecular Weight: Approximately 25.8 kDa

PROPERTIES

AA Sequence

ASGNARIGKP APDFKATAVV DGAFKEVKLS DYKGKYVVLF FYPLDFTFVC PTEIIAFSNR AEDFRKLGCE VLGVSVDSQF THLAWINTPR KEGGLGPLNI PLLADVTRRL SEDYGVLKTD EGIAYRGLFI IDGKGVLROI TVNDLPVGRS VDEALRLVQA FQYTDEHGEV CPAGWKPGSD TIKPNVDDSK EYFSKHN

Biological Activity

The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.

Appearance

Lyophilized powder.

Formulation

Lyophilized after extensive dialysis against solution in Tris-based buffer, 50% glycerol.

Endotoxin Level

<1 EU/µg, determined by LAL method.

Reconsititution

It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH₂O.

Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping

Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

Peroxiredoxin-2 (PRDX2), a thiol-specific peroxidase, serves as a catalyst in the reduction of hydrogen peroxide and organic hydroperoxides, converting them into water and alcohols, respectively. Its vital role in cellular protection against oxidative stress involves detoxifying peroxides and acting as a sensor for hydrogen peroxide-mediated signaling events. PRDX2 may

also participate in the signaling cascades initiated by growth factors and tumor necrosis factor-alpha, potentially influencing intracellular concentrations of H(2)O(2). This versatile protein underscores its significance in cellular redox regulation and stress response pathways.

Caution: Product has not been fully validated for medical applications. For research use only.

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Page 2 of 2 www.MedChemExpress.com