

Recombinant Human Thioredoxin-2/TXN2 Protein (His Tag)

Catalog Number: PKSH030817

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

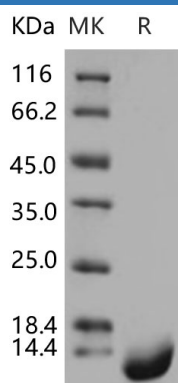
Description

| | |
|----------------------|---|
| Species | Human |
| Source | E.coli-derived Human Thioredoxin-2/TXN2 protein Thr 60-Gly 166, with an N-terminal His |
| Calculated MW | 13.4 kDa |
| Observed MW | 13 kDa |
| Accession | Q99757 |
| Bio-activity | Measured by its ability to catalyze the reduction of insulin. The reaction leads to precipitation, which can be measured by absorbance at 650 nm. The specific activity is 5-8 A650/min/mg. |

Properties

| | |
|-----------------------|---|
| Purity | > 97 % as determined by reducing SDS-PAGE. |
| Endotoxin | Please contact us for more information. |
| 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 PBS, pH 8.3 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



> 97 % as determined by reducing SDS-PAGE.

Background

For Research Use Only

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Thioredoxin-2; also known as TXN2; MTRX and TRX2; is a member of the thioredoxin family. Tryparedoxins (TXN) are thioredoxin-related proteins which, as trypanothione:peroxyredoxin oxidoreductases; constitute the trypanothione-dependent antioxidant defense and may also serve as substrates for ribonucleotide reductase in trypanosomatids. Thioredoxin-2 / TXN2 contains onethioredoxin domain. It is widely expressed in adult (at protein level) and fetal tissues. Human Thioredoxin-2 / TXN2 is a small redox protein important in cellular antioxidant defenses; as well as in the regulation of apoptosis. Thioredoxin-2 / TXN2 has an anti-apoptotic function and plays an important role in the regulation of mitochondrial membrane potential. Thioredoxin-2 / TXN2 could be involved in the resistance to anti-tumor agents. It possesses a dithiol-reducing activity. Thioredoxin-2 / TXN2 plays an important role in protecting the mitochondria against oxidative stress and in sensitizing the cells to ROS-induced apoptosis. Mammalian Thioredoxin-2 / TXN2 is a mitochondrial isoform of highly evolutionary conserved thioredoxins. Thioredoxins are small ubiquitous protein-disulfide oxidoreductases implicated in a large variety of biological functions.

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