

Recombinant Human Thioredoxin/TXN Protein

Catalog Number: PKSH030450

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

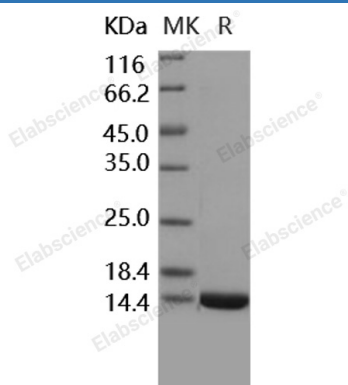
Description

Species	Human
Source	E.coli-derived Human Thioredoxin/TXN protein Met 1-Val 105
Calculated MW	11.7 kDa
Observed MW	14 kDa
Accession	P10599
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 5-10 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 7.5 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

Thioredoxin; also known as ATL-derived factor; Surface-associated sulphydryl protein; SASP and TXN; is a nucleus; cytoplasm and secreted protein which belongs to the thioredoxin family. Thioredoxins are proteins that act as antioxidants by facilitating the reduction of other proteins by cysteine thiol-disulfide exchange. Thioredoxins are found in nearly all known organisms and are essential for life in mammals. Thioredoxin / TXN participates in various redox reactions through the reversible oxidation of its active center dithiol to a disulfide and catalyzes dithiol-disulfide exchange reactions. Thioredoxin / TXN plays a role in the reversible S-nitrosylation of cysteine residues in target proteins; and thereby contributes to the response to intracellular nitric oxide. Thioredoxin / TXN nitrosylates the active site Cys of CASP3 in response to nitric oxide (NO); and thereby inhibits caspase-3 activity. Thioredoxin / TXN induces the FOS/JUN AP-1 DNA-binding activity in ionizing radiation (IR) cells through its oxidation/reduction status and stimulates AP-1 transcriptional activity.