Thioredoxin (E. coli), (recombinant) (His-tag)

Thioredoxin (Trx) is a redox protein of approximately 12 kDa. Its primary domain is conserved across a number of Trx family members and contains a conserved catalytic site Cys-Gly-Pro-Cys. It is ubiquitous and found in many organisms from bacteria to mammals. Trx has been shown to function in cell proliferation, redox signaling and inhibition of apoptosis. Trx is reduced by the NADPH-dependent flavoenzyme thioredoxin reductase, and in turn reduces other proteins such as protein disulfide isomerase (PDI) by cysteine thiol-disulfide exchange. Trx has been reported to selectively activate the DNA binding of a number of transcription factors such as p53, NFkB, AP1 and glucocorticoid receptor, resulting in alteration of gene transcription. The reduced Trx can supply reducing equivalents for ribonucleotide reductase, the essential enzyme for DNA synthesis, and thioredoxin peroxidase. As a cofactor for the peroxiredoxins, Trx plays a direct role in reducing oxidative species such as H_2O_2.

Citations: 1 View Online »

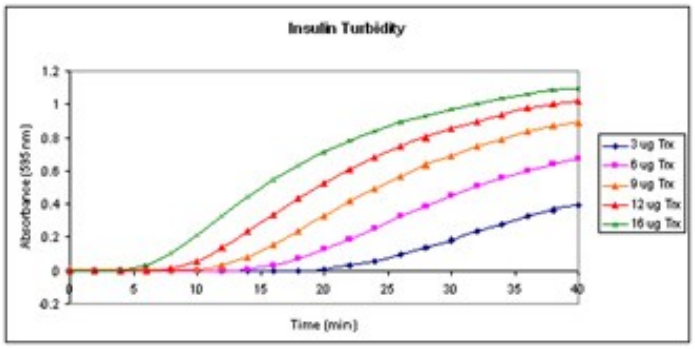
Ordering Information

Order Online »

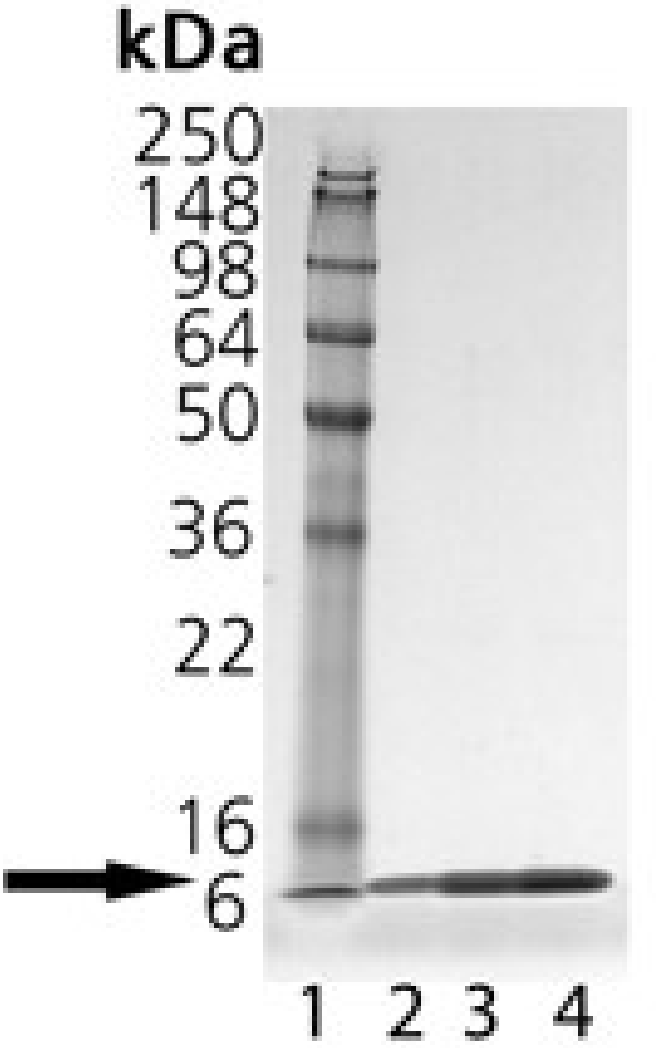
ADI-SPP-892-1	1mg
ADI-SPP-892-200	200µg

Manuals, SDS & CofA

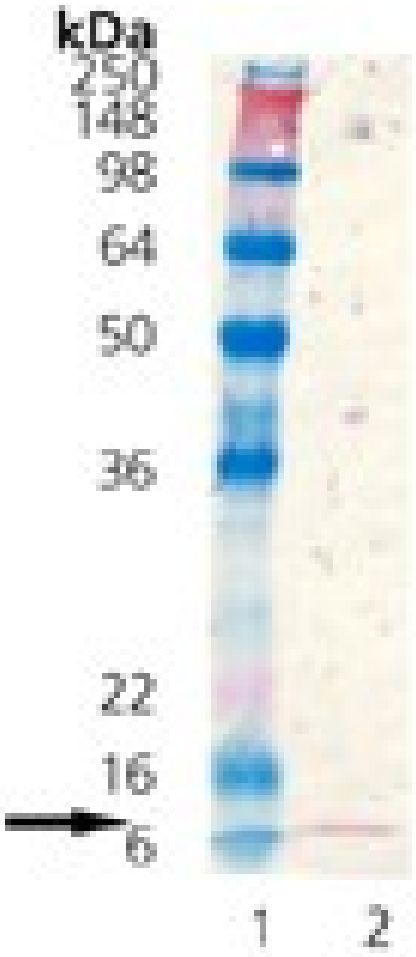
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Variable amounts of thioredoxin incubated with Insulin in the presence of DTT. Activity is measured as increase in absorbance over time.



SDS-PAGE analysis: Lane 1: MWM, Lane 2: 1µg, Lane 3: 2µg, Lane 4: 5µg Thioredoxin.



Western Blot analysis: Lane 1: MWM, Lane 2: Thioredoxin, probed with thioredoxin mAb.

Handling & Storage

Long Term Storage	-80°C
Shipping	Dry Ice

Regulatory Status RUO - Research Use Only

Product Details

Alternative Name	Trx
Application Notes	Western blot control.
Formulation	Liquid. In 50mM TRIS, pH 7.5, containing 100mM sodium chloride and 1mM EDTA.
MW	~12kDa
Purity	≥95% (SDS-PAGE; Western blot)
Purity Detail	Purified by multi-step chromatography.
Source	Produced in *E. coli*. *E. coli* thioredoxin is fused at the N-terminus to a His-tag.

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