

Product datasheet

Recombinant E. coli Thioredoxin / TRX protein ab115709

[2 Images](#)

Description

Product name	Recombinant E. coli Thioredoxin / TRX protein
Purity	> 95 % SDS-PAGE. ab115709 is purified by multi-step chromatography
Expression system	Escherichia coli
Accession	<u>P0AA25</u>
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Escherichia coli
Predicted molecular weight	12 kDa
Tags	His tag N-Terminus

Specifications

Our **Abpromise guarantee** covers the use of **ab115709** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE Western blot Functional Studies
Form	Liquid

Preparation and Storage

Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles. Constituents: 0.61% Tris, 0.03% EDTA, 0.58% Sodium chloride This product is an active protein and may elicit a biological response in vivo, handle with caution.
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General Info

Function

Participates in various redox reactions through the reversible oxidation of its active center dithiol to a disulfide and catalyzes dithiol-disulfide exchange reactions. Plays a role in the reversible S-nitrosylation of cysteine residues in target proteins, and thereby contributes to the response to intracellular nitric oxide. Nitrosylates the active site Cys of CASP3 in response to nitric oxide (NO), and thereby inhibits caspase-3 activity. 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.

ADF augments the expression of the interleukin-2 receptor TAC (IL2R/P55).

Sequence similarities

Belongs to the thioredoxin family.

Contains 1 thioredoxin domain.

Post-translational modifications

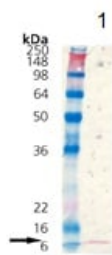
In the fully reduced protein, both Cys-69 and Cys-73 are nitrosylated in response to nitric oxide (NO). When two disulfide bonds are present in the protein, only Cys-73 is nitrosylated. Cys-73 can serve as donor for nitrosylation of target proteins.

In case of infection, ubiquitinated by *S.typhimurium* protein slrP, leading to its degradation.

Cellular localization

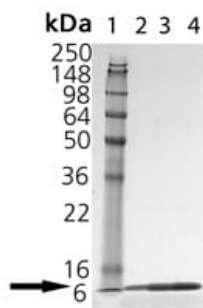
Nucleus. Cytoplasm. Secreted. Secreted by a leaderless secretory pathway. Predominantly in the cytoplasm in non irradiated cells. Radiation induces translocation of TRX from the cytoplasm to the nucleus.

Images



Western blot - Recombinant *E. coli* Thioredoxin / TRX protein (ab115709)

Thioredoxin /TRX antibody + Recombinant *E. coli* Thioredoxin / TRX protein (ab115709) at 0.1 μ g



SDS-PAGE - Recombinant *E. coli* Thioredoxin / TRX protein (ab115709)

SDS-PAGE analysis

Lane 1: MW markers

Lane 2: ab115709 at 1 μ g

Lane 3: ab115709 at 2 μ g

Lane 4: ab115709 at 5 μ g

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