**BACKGROUND**

Thioredoxin (Trx) is a redox protein that is found in several species, such as bacteria, plants and mammals, and contains a conserved active site, consisting of Trp-Cys-Gly-Pro-Cys. Trx has several biological functions. It acts as a hydrogen donor for ribonucleotide reductase, which is critical for DNA synthesis, and modulates the DNA-binding activity of several transcription factors, including NFκB, AP-1, p53, TFIIIC and glucocorticoid receptor. Trx also stimulates cell growth, is an inhibitor of apoptosis and plays a role in the protection against oxidative stress. Drugs that inhibit Trx have antitumor activity, suggesting that Trx is involved in a variety of human diseases, including cancer. TrxR is a ubiquitously expressed flavoprotein that catalyzes the NADPH-dependent reduction of Trx as well as several other oxidized cellular components.

**REFERENCES**


**SOURCE**

Trx (Trx1): sc-13526

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**PRODUCT**

Trx (Trx1) is available conjugated to agarose (sc-13526 AC), 500 µg/0.25 ml, for IP; to E. coli (Trx1), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; to either Alexa Fluor 647 (sc-13526 AF647), Alexa Fluor® 546 (sc-13526 AF546), Alexa Fluor® 594 (sc-13526 AF594) or Alexa Fluor® 674 (sc-13526 AF674), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-13526 AF680) or Alexa Fluor® 790 (sc-13526 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**STORAGE**

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**APPLICATIONS**

Trx (Trx1) is recommended for detection of Trx and Trx fusion proteins of *E. coli* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA [starting dilution 1:30, dilution range 1:30-1:3000].

Molecular Weight of Trx: 12 kDa.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

**DATA**

[Image: Trx (Trx1): sc-13526. Western blot analysis of Trx tagged fusion protein.]

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.