



# TRP14 (N-15): sc-109112

## BACKGROUND

Thioredoxins comprise a family of small proteins that, by catalyzing the oxidation of disulfide bonds, participate in redox reactions throughout the cell. Proteins that contain thioredoxin domains do not necessarily convey the oxidative properties of thioredoxins, but generally function as disulfide isomerases that enzymatically rearrange disulfide bonds found in various proteins. TRP14 (thioredoxin-related protein 14), also known as Protein 42-9-9, TXNL5 or TXNDC17, is a 123 amino acid cytoplasmic protein that is ubiquitously expressed. Considered a disulfide reductase, TRP14 may participate in various redox reactions through the reversible oxidation of its active center dithiol to a disulfide and catalyze dithiol-disulfide exchange reactions. TRP14 modulates TNF $\alpha$  signaling and NF $\kappa$ B activation. Suggested to have peroxidase activity, TRP14 may contribute to the elimination of cellular hydrogen peroxide. TRP14 is reduced by TrXR1 and interacts with DYNLL1.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: TXNDC17 (human) mapping to 17p13.2.

## STORAGE

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

## RESEARCH USE

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

## SOURCE

TRP14 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of TRP14 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-109112 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

TRP14 (N-15) is recommended for detection of TRP14 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other thioredoxin-related protein family members.

Suitable for use as control antibody for TRP14 siRNA (h): sc-93898, TRP14 shRNA Plasmid (h): sc-93898-SH and TRP14 shRNA (h) Lentiviral Particles: sc-93898-V.

Molecular Weight of TRP14: 14 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.