

# Selenoprotein T (P-18): sc-99623

## BACKGROUND

Selenium is an essential trace element that is incorporated as selenocysteine into the primary structure of selenoproteins. Nutritional deficiency of selenium decreases selenoprotein concentrations and leads to pathologic conditions. Most of the known selenoproteins are members of the glutathione peroxidase or iodothyronine deiodinase families. Selenoprotein T, also known as SELT, is a 195 amino acid ubiquitously expressed protein that localizes to the endoplasmic reticulum and is a member of the SelWTH family and SELT sub-family. Selenoprotein T contains a selenocysteine (Sec) residue at its active site and is thought to be involved in redox regulation and cell anchorage. Between Cys-46 and Sec-49, Selenoprotein T may contain a selenide-sulfide bond, which is speculated to serve as the redox active pair. It is suggested that selenoprotein T regulates Ca<sup>2+</sup> homeostasis and neuroendocrine secretion in response to a cAMP-stimulating trophic factor.

## REFERENCES

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3. Dikiy, A., et al. 2007. SelT, SelW, SelH, and Rdx12: genomics and molecular insights into the functions of selenoproteins of a novel thioredoxin-like family. *Biochemistry* 46: 6871-6882.
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## CHROMOSOMAL LOCATION

Genetic locus: SELT (human) mapping to 3q25.1; 2810407C02Rik (mouse) mapping to 3 D.

## SOURCE

Selenoprotein T (P-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Selenoprotein T of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-99623 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Selenoprotein T (P-18) is recommended for detection of Selenoprotein T of mouse, rat and 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 Selenoprotein family members.

Selenoprotein T (P-18) is also recommended for detection of Selenoprotein T in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Selenoprotein T siRNA (h): sc-77942, Selenoprotein T siRNA (m): sc-153329, Selenoprotein T shRNA Plasmid (h): sc-77942-SH, Selenoprotein T shRNA Plasmid (m): sc-153329-SH, Selenoprotein T shRNA (h) Lentiviral Particles: sc-77942-V and Selenoprotein T shRNA (m) Lentiviral Particles: sc-153329-V.

Molecular Weight of Selenoprotein T: 22 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.

## 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.

## PROTOCOLS

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