

Selenoprotein S (H-189): sc-98774

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 S, also known as VIMP or SELS, is a 189 amino acid single-pass membrane protein that localizes to the endoplasmic reticulum (ER) and contains a selenocysteine (Sec) residue at its active site. Interacting with Derlin-1 and VCP, Selenoprotein S is involved in the degradation of misfolded ER proteins, specifically participating in the transfer of misfolded proteins from the ER to the cytosol for subsequent proteasomal degradation. Aberrant expression of Selenoprotein S is associated with diabetes, cardiovascular disease and rheumatoid arthritis.

REFERENCES

1. Kryukov, G.V., et al. 2003. Characterization of mammalian selenoproteomes. *Science* 300: 1439-1443.
2. Curran, J.E., et al. 2005. Genetic variation in Selenoprotein S influences inflammatory response. *Nat. Genet.* 37: 1234-1241.

CHROMOSOMAL LOCATION

Genetic locus: VIMP (human) mapping to 15q26.3; Vimp (mouse) mapping to 7 C.

SOURCE

Selenoprotein S (H-189) is a rabbit polyclonal antibody raised against amino acids 1-189 of Selenoprotein S 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.

APPLICATIONS

Selenoprotein S (H-189) is recommended for detection of Selenoprotein S of mouse, rat and human 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)], 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).

Selenoprotein S (H-189) is also recommended for detection of Selenoprotein S in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Selenoprotein S siRNA (h): sc-90187, Selenoprotein S siRNA (m): sc-106542, Selenoprotein S shRNA Plasmid (h): sc-90187-SH, Selenoprotein S shRNA Plasmid (m): sc-106542-SH, Selenoprotein S shRNA (h) Lentiviral Particles: sc-90187-V and Selenoprotein S shRNA (m) Lentiviral Particles: sc-106542-V.

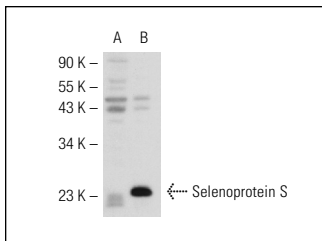
Molecular Weight of Selenoprotein S: 21 kDa.

Positive Controls: Selenoprotein S (m): 293T Lysate: sc-127522.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Selenoprotein S (FL-189): sc-98774. Western blot analysis of Selenoprotein S expression in non-transfected: sc-117752 (A) and mouse Selenoprotein S transfected: sc-127522 (B) 293T whole cell lysates.

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 or our catalog for detailed protocols and support products.


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Try **Selenoprotein S (D-1): sc-365498**, our highly recommended monoclonal alternative to Selenoprotein S (H-189).