

Selenoprotein P (H-300): sc-30162

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 P (SEPP1) is a major selenoprotein that is not a member of those families. It is an extracellular glycoprotein that is present in several isoforms and is the only selenoprotein known to contain multiple selenocysteine residues. Selenoprotein P is a heparin-binding protein that appears to be associated with endothelial cells and has been implicated as an oxidant defense in the extracellular space. Although there is evidence of several isoforms of the protein, all of them share the same amino-terminal sequence and therefore are likely products of the same gene. The gene which encodes Selenoprotein P maps to human chromosome 5q31.

REFERENCES

1. Observations on effect of sodium selenite in prevention of Keshan disease. 1979. *Chin. Med. J. (Engl.)* 92: 471-476. (no authors listed)
2. Hill, K.E., Lloyd, R.S. and Burk, R.F. 1993. Conserved nucleotide sequences in the open reading frame and 3' untranslated region of Selenoprotein P mRNA. *Proc. Natl. Acad. Sci. USA* 90: 537-541.
3. Hill, K.E., Dasouki, M., Phillips, J.A. 3rd, and Burk, R.F. 1996. Human Selenoprotein P gene maps to 5q31. *Genomics* 36: 550-551.
4. Chittum, H.S., Himeno, S., Hill, K.E., Burk, R.F. 1996. Multiple forms of Selenoprotein P in rat plasma. *Arch. Biochem. Biophys.* 325: 124-128.
5. LocusLink Report (LocusID: 601484). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: SEPP1 (human) mapping to 5q12; Sepp1 (mouse) mapping to 15 A1.

SOURCE

Selenoprotein P (H-300) is a rabbit polyclonal antibody raised against amino acids 82-381 mapping at the C-terminus of Selenoprotein P 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.

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.

APPLICATIONS

Selenoprotein P (H-300) is recommended for detection of Selenoprotein P 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).

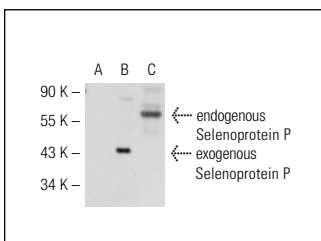
Suitable for use as control antibody for Selenoprotein P siRNA (h): sc-40930, Selenoprotein P siRNA (m): sc-40931, Selenoprotein P shRNA Plasmid (h): sc-40930-SH, Selenoprotein P shRNA Plasmid (m): sc-40931-SH, Selenoprotein P shRNA (h) Lentiviral Particles: sc-40930-V and Selenoprotein P shRNA (m) Lentiviral Particles: sc-40931-V.

Molecular Weight of Selenoprotein P: 57/45 kDa.

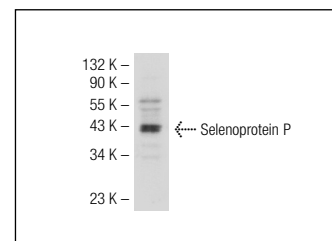
RECOMMENDED SECONDARY REAGENTS

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 P (H-300): sc-30162. Western blot analysis of Selenoprotein P expression in non-transfected 293T: sc-117752 (A), mouse Selenoprotein P transfected 293T: sc-123443 (B) and human PBL (C) whole cell lysates.



Selenoprotein P (H-300): sc-30162. Western blot analysis of Selenoprotein P expression in Hep G2 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Yoo, S.W., et al. 2011. A large network of interconnected signaling pathways in human ovarian follicles is supported by the gene expression activity of the granulosa cells. *Reprod. Sci.* 18: 476-484.



Try **Selenoprotein P (B-9): sc-376858**, our highly recommended monoclonal alternative to Selenoprotein P (H-300). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Selenoprotein P (B-9): sc-376858**.