SANTA CRUZ BIOTECHNOLOGY, INC.

SELENBP1 (S-16): sc-160790

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. SELENBP1 (selenium binding protein 1), also known as LPSB or SP56, is a 472 amino acid peripheral membrane protein that binds selenium and is implicated in detecting xenobiotics in cytoplasm. Existing as two alternatively spliced isoforms and a member of the selenium-binding protein family, SELENBP1 is likely involved in intra-Golgi protein transport, selenium-dependent cell growth inhibition and ubiquitination/deubiquitination-mediated protein degradation. SELENBP1 is highly expressed in prostate, lung, kidney, pancreas and liver, and is upregulated in the blood and brain of schizophrenia patients.

REFERENCES

1. Lanfear, J., et al. 1993. Different patterns of regulation of the genes encoding the closely related 56 kDa selenium- and acetaminophen-binding proteins in normal tissues and during carcinogenesis. Carcinogenesis 14: 335-340.
2. Chang, P.W., et al. 1997. Isolation, characterization, and chromosomal mapping of a novel cDNA clone encoding human selenium binding protein. J. Cell. Biochem. 64: 217-224.
3. Okunuki, Y., et al. 2007. Proteomic surveillance of autoimmunity in Behcet's disease with uveitis: selenium binding protein is a novel autoantigen in Behcet's disease. Exp. Eye Res. 84: 823-831.
4. Kanazawa, T., et al. 2008. The utility of SELENBP1 gene expression as a biomarker for major psychotic disorders: replication in schizophrenia and extension to bipolar disorder with psychosis. Am. J. Med. Genet. B Neuropsychiatr. Genet. 147B: 686-689.
5. Li, T., et al. 2008. Expression of selenium-binding protein 1 characterizes intestinal cell maturation and predicts survival for patients with colorectal cancer. Mol. Nutr. Food Res. 52: 1289-1299.
6. Jeong, J.Y., et al. 2009. Human selenium binding protein-1 (hSP56) interacts with VDU1 in a selenium-dependent manner. Biochem. Biophys. Res. Commun. 379: 583-588.

CHROMOSOMAL LOCATION

Genetic locus: SELENBP1 (human) mapping to 1q21.2; Selenbp1/Selenbp2 (mouse) mapping to 3 F2.1.

SOURCE

SELENBP1 (S-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SELENBP1 of human origin.

RESEARCH USE

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

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-160790 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SELENBP1 (S-16) is recommended for detection of SELENBP1 of mouse, rat, and human origin and SELENBP2 of mouse 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).

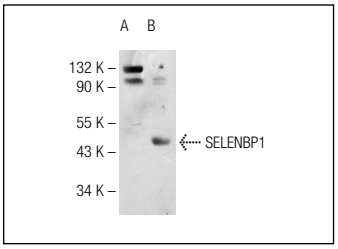
SELENBP1 (S-16) is also recommended for detection of SELENBP1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for SELENBP1 siRNA (h): sc-88367, SELENBP1 siRNA (m): sc-153324, SELENBP1 shRNA Plasmid (h): sc-88367-SH, SELENBP1 shRNA Plasmid (m): sc-153324-SH, SELENBP1 shRNA (h) Lentiviral Particles: sc-88367-V and SELENBP1 shRNA (m) Lentiviral Particles: sc-153324-V.

Molecular Weight of SELENBP1: 52 kDa.

Positive Controls: SELENBP1 (m): 293T Lysate: sc-123437.

DATA



SELENBP1 (S-16): sc-160790. Western blot analysis of SELENBP1 expression in non-transfected: sc-117752 (**A**) and mouse SELENBP1 transfected: sc-123437 (**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.

MONOS Satisfaction Guaranteed

Try **SELENBP1 (G-9): sc-373726**, our highly recommended monoclonal alternative to SELENBP1 (S-16).