

# SBP-2L (N-19): sc-248540

## BACKGROUND

SBP-2L (selenocysteine insertion sequence-binding protein 2-like), also known as SECISBP2L, is a 1,101 amino acid protein. It has been suggested that SBP-2L is involved in selenoprotein synthesis. Existing as two alternatively spliced isoforms, the SBP-2L gene is conserved in chimpanzee, canine, mouse, rat and chicken, and maps to human chromosome 15q21.1. Encoding more than 700 genes, chromosome 15 is made up of approximately 106 million base pairs and consists of about 3% of the human genome. Angelman and Prader-Willi syndromes are associated with loss of function or deletion of genes in the 15q11-q13 region. In the case of Angelman syndrome, this loss is due to inactivity of the maternal 15q11-q13 encoded UBE3A gene in the brain by either chromosomal deletion or mutation. In cases of Prader-Willi syndrome, there is a partial or complete deletion of this region from the paternal copy of chromosome 15. Tay-Sachs disease is a lethal disorder associated with mutations of the HEXA gene, which is encoded by chromosome 15. Marfan syndrome is associated with chromosome 15 through the FBN1 gene.

## REFERENCES

1. Nagase, T., Seki, N., Ishikawa, K., Ohira, M., Kawarabayasi, Y., Ohara, O., Tanaka, A., Kotani, H., Miyajima, N. and Nomura, N. 1996. Prediction of the coding sequences of unidentified human genes. VI. The coding sequences of 80 new genes (KIAA0201-KIAA0280) deduced by analysis of cDNA clones from cell line KG-1 and brain. *DNA Res.* 3: 321-9, 341.
2. Cachón-González, M.B., Wang, S.Z., Lynch, A., Ziegler, R., Cheng, S.H. and Cox, T.M. 2006. Effective gene therapy in an authentic model of Tay-Sachs-related diseases. *Proc. Natl. Acad. Sci. USA* 103: 10373-10378.
3. Lalonde, M. and Calciano, M.A. 2007. Molecular epigenetics of Angelman syndrome. *Cell. Mol. Life Sci.* 64: 947-960.
4. Makoff, A.J. and Flomen, R.H. 2007. Detailed analysis of 15q11-q14 sequence corrects errors and gaps in the public access sequence to fully reveal large segmental duplications at breakpoints for Prader-Willi, Angelman, and inv dup(15) syndromes. *Genome Biol.* 8: R114.
5. Ramirez, F. and Dietz, H.C. 2007. Fibrillin-rich microfibrils: Structural determinants of morphogenetic and homeostatic events. *J. Cell. Physiol.* 213: 326-330.
6. ten Dijke, P. and Arthur, H.M. 2007. Extracellular control of TGF $\beta$  signalling in vascular development and disease. *Nat. Rev. Mol. Cell Biol.* 8: 857-869.
7. Donovan, J. and Copeland, P.R. 2009. Evolutionary history of selenocysteine incorporation from the perspective of SECIS binding proteins. *BMC Evol. Biol.* 9: 229.

## CHROMOSOMAL LOCATION

Genetic locus: SECISBP2L (human) mapping to 15q21.1; Secisbp2l (mouse) mapping to 2 F1.

## SOURCE

SBP-2L (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of SBP-2L 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-248540 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SBP-2L (N-19) is recommended for detection of SBP-2L 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 SBP-2.

SBP-2L (N-19) is also recommended for detection of SBP-2L in additional species, including canine and porcine.

Suitable for use as control antibody for SBP-2L siRNA (h): sc-90257, SBP-2L siRNA (m): sc-146443, SBP-2L shRNA Plasmid (h): sc-90257-SH, SBP-2L shRNA Plasmid (m): sc-146443-SH, SBP-2L shRNA (h) Lentiviral Particles: sc-90257-V and SBP-2L shRNA (m) Lentiviral Particles: sc-146443-V.

Molecular Weight of SBP-2L isoforms 1/2: 122/117 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.