

SSBP2 (H-45): sc-98512

BACKGROUND

The single-stranded-DNA-binding proteins (SSBs) are essential for DNA function in prokaryotic and eukaryotic cells, as well as in mitochondria, bacteria and viruses. SSBP2 (single-stranded DNA binding protein 2), also known as SSDP2, is a 361 amino acid protein that localizes to the nucleus and contains one LisH domain. Expressed ubiquitously, SSBP2 is thought to induce growth arrest in cancer cells and may, therefore, function as a potent tumor suppressor. The gene encoding SSBP2 maps to human chromosome 5, which contains 181 million base pairs and comprises nearly 6% of the human genome. Defects in chromosome 5-associated genes are related to the pathogenesis of Cockayne syndrome, familial adenomatous polyposis and Treacher Collins syndrome.

REFERENCES

1. Bayarsaihan, D., et al. 1998. Cloning and characterization of a novel sequence-specific single-stranded-DNA-binding protein. *Biochem. J.* 331: 447-452.
2. Castro, P., et al. 2002. A novel, evolutionarily conserved gene family with putative sequence-specific single-stranded DNA-binding activity. *Genomics* 80: 78-85.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607389. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Liang, H., et al. 2005. SSBP2, a candidate tumor suppressor gene, induces growth arrest and differentiation of myeloid leukemia cells. *Oncogene* 24: 2625-2634.
5. Xu, Z., et al. 2007. Single-stranded DNA-binding proteins regulate the abundance of LIM domain and LIM domain-binding proteins. *Genes Dev.* 21: 942-955.
6. Liu, J.W., et al. 2008. ssDNA-binding protein 2 is frequently hypermethylated and suppresses cell growth in human prostate cancer. *Clin. Cancer Res.* 14: 3754-3760.
7. Poitras, J.L., et al. 2008. Novel SSBP2-JAK2 fusion gene resulting from a t(5;9)(q14.1;p24.1) in pre-B acute lymphocytic leukemia. *Genes Chromosomes Cancer* 47: 884-889.

CHROMOSOMAL LOCATION

Genetic locus: SSBP2 (human) mapping to 5q14.1; Ssbp2 (mouse) mapping to 13 C3.

SOURCE

SSBP2 (H-45) is a rabbit polyclonal antibody raised against amino acids 311-355 mapping near the C-terminus of SSBP2 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

SSBP2 (H-45) is recommended for detection of SSBP2 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); may cross-react with SSBP3 and SSBP4.

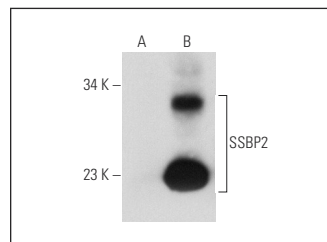
SSBP2 (H-45) is also recommended for detection of SSBP2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for SSBP2 siRNA (h): sc-92001, SSBP2 siRNA (m): sc-153840, SSBP2 shRNA Plasmid (h): sc-92001-SH, SSBP2 shRNA Plasmid (m): sc-153840-SH, SSBP2 shRNA (h) Lentiviral Particles: sc-92001-V and SSBP2 shRNA (m) Lentiviral Particles: sc-153840-V.

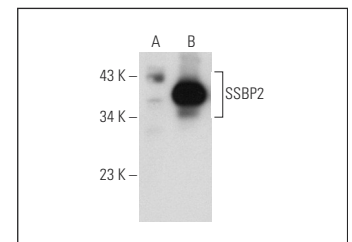
Molecular Weight of SSBP2: 38 kDa.

Positive Controls: SSBP2 (m): 293T Lysate: sc-123790, NIH/3T3 nuclear extract: sc-2138 or Raji whole cell lysate: sc-364236.

DATA



SSBP2 (H-45): sc-98512. Western blot analysis of SSBP2 expression in non-transfected: sc-117752 (A) and mouse SSBP2 transfected: sc-123790 (B) 293T whole cell lysates.



SSBP2 (H-45): sc-98512. Western blot analysis of SSBP2 expression in non-transfected: sc-117752 (A) and mouse SSBP2 transfected: sc-123790 (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.



Try **SSBP2 (D-3): sc-166687**, our highly recommended monoclonal alternative to SSBP2 (H-45).