

SSBP2 (C-12): sc-131792

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

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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 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of SSBP2 of human origin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

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-131792 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-131792 X, 200 µg/0.1 ml.

APPLICATIONS

SSBP2 (C-12) 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), 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 other SSBP family members.

SSBP2 (C-12) is also recommended for detection of SSBP2 in additional species, including bovine.

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.

SSBP2 (C-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of SSBP2: 38 kDa.

Positive Controls: H4 cell lysate: sc-2408 or NIH/3T3 nuclear extract: sc-2138.

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.

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.