# SSBP3 (N-13): sc-103961



The Power to Question

### **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. SSBP3 (single stranded DNA binding protein 3), also known as CSDP or SSDP, is a 388 amino acid protein that localizes to the nucleus and contains one LisH domain. Highly expressed in spleen, bone marrow, thymus, lymph node, kidney, brain, heart and skeletal muscle, SSBP3 binds to the single-stranded polypyrimidine sequences in the promotor of COLA2 genes and is thought to regulate the transcription of COLA2 genes. SSBP3 is expressed as multiple alternatively spliced isoforms that are encoded by a gene which maps to human chromosome 1.

# **REFERENCES**

- 1. Raval-Fernandes, S., Kickhoefer, V.A. and Rome, L.H. 1999. Cloning of a cDNA encoding a sequence-specific single-stranded-DNA-binding protein from *Rattus norvegicus*. Gene 237: 201-207.
- Castro, P., Liang, H., Liang, J.C. and Nagarajan, L. 2002. A novel, evolutionarily conserved gene family with putative sequence-specific single-stranded DNA-binding activity. Genomics 80: 78-85.
- Chen, L., Segal, D., Hukriede, N.A., Podtelejnikov, A.V., Bayarsaihan, D., Kennison, J.A., Ogryzko, V.V., Dawid, I.B. and Westphal, H. 2002. SSDP proteins interact with the LIM-domain-binding protein Ldb1 to regulate development. Proc. Natl. Acad. Sci. USA 99: 14320-14325.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607390. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- van Meyel, D.J., Thomas, J.B. and Agulnick, A.D. 2003. SSDP proteins bind to LIM-interacting co-factors and regulate the activity of LIM-homeodomain protein complexes in vivo. Development 130: 1915-1925.

## CHROMOSOMAL LOCATION

Genetic locus: SSBP3 (human) mapping to 1p32.3; Ssbp3 (mouse) mapping to 4 C7.

# **SOURCE**

SSBP3 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of SSBP3 of human origin.

# **PRODUCT**

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-103961 P, (100  $\mu$ g 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-103961 X, 200  $\mu$ g/0.1 ml.

# **STORAGE**

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

#### **APPLICATIONS**

SSBP3 (N-13) is recommended for detection of SSBP3 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 family members SSBP2 or SSBP4.

SSBP3 (N-13) is also recommended for detection of SSBP3 in additional species, including bovine and avian.

Suitable for use as control antibody for SSBP3 siRNA (h): sc-88054, SSBP3 siRNA (m): sc-106565, SSBP3 shRNA Plasmid (h): sc-88054-SH, SSBP3 shRNA Plasmid (m): sc-106565-SH, SSBP3 shRNA (h) Lentiviral Particles: sc-88054-V and SSBP3 shRNA (m) Lentiviral Particles: sc-106565-V.

SSBP3 (N-13) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

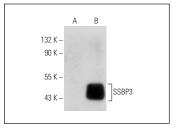
Molecular Weight of SSBP3: 40 kDa.

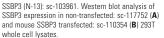
Positive Controls: SSBP3 (m3): 293T Lysate: sc-110354, SSBP3 (h): 293T Lysate: sc-117048 or K-562 whole cell lysate: sc-2203.

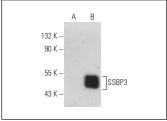
#### **RECOMMENDED SECONDARY REAGENTS**

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

### **DATA**







SSBP3 (N-13): sc-103961. Western blot analysis of SSBP3 expression in non-transfected: sc-117752 (A) and human SSBP3 transfected: sc-117048 (B) 293T whole cell lysates.

### **RESEARCH USE**

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