# SANTA CRUZ BIOTECHNOLOGY, INC.

# SSB-3 (Q-15): sc-165595



The Power to Question

## BACKGROUND

Members of the suppressor of cytokine signaling (SOCS) family of proteins contain C-terminal regions of homology called the SOCS box, which serves to couple SOCS proteins and their binding partners with the Elongin BC complex, thereby mediating protein degradation. Several other families of proteins also contain SOCS boxes, but differ from the SOCS proteins in the type of domain they contain upstream of the SOCS box. SSB-3 (SPRY domain-containing SOCS box protein 3), also known as SPSB3, is a 355 amino acid protein that contains one SOCS box domain a B30.2/SPRY domain. Functioning as a substrate recognition component of the Elongin BC complex, SSB-3 plays a role in the ubiquitination and subsequent proteasomal degradation of target proteins.

## REFERENCES

- Hilton, D.J., et al. 1998. Twenty proteins containing a C-terminal SOCS box form five structural classes. Proc. Natl. Acad. Sci. USA 95: 114-119.
- Nicola, N.A., et al. 2000. The suppressors of cytokine signaling (SOCS) proteins: important feedback inhibitors of cytokine action. Exp. Hematol. 28: 1105-1112.
- 3. Larsen, L., et al. 2002. Suppressors of cytokine signalling: SOCS. APMIS. 110: 833-844.
- 4. Kile, B.T., et al. 2002. The SOCS box: a tale of destruction and degradation. Trends Biochem. Sci. 27: 235-241.
- Kamura, T., et al. 2004. VHL-box and SOCS-box domains determine binding specificity for Cul2-Rbx1 and Cul5-Rbx2 modules of ubiquitin ligases. Genes Dev. 18: 3055-3065.
- Wang, D., et al. 2005. The SPRY domain-containing SOCS box protein 1 (SSB-1) interacts with MET and enhances the hepatocyte growth factorinduced Erk-Elk-1-serum response element pathway. J. Biol. Chem. 280: 16393-16401.
- Woo, J.S., et al. 2006. Structural basis for protein recognition by B30.2/ SPRY domains. Mol. Cell 24: 967-976.
- 8. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 611659. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

## CHROMOSOMAL LOCATION

Genetic locus: SPSB3 (human) mapping to 16p13.3; Spsb3 (mouse) mapping to 17 A3.3.

#### SOURCE

SSB-3 (Q-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SSB-3 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  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-165595 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

# **APPLICATIONS**

SSB-3 (Q-15) is recommended for detection of SSB-3 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 SSB family members.

SSB-3 (Q-15) is also recommended for detection of SSB-3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SSB-3 siRNA (h): sc-93107, SSB-3 siRNA (m): sc-153838, SSB-3 shRNA Plasmid (h): sc-93107-SH, SSB-3 shRNA Plasmid (m): sc-153838-SH, SSB-3 shRNA (h) Lentiviral Particles: sc-93107-V and SSB-3 shRNA (m) Lentiviral Particles: sc-153838-V.

Molecular Weight of SSB-3: 39 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) Immunofluo-rescence: 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.