

SSB-4 (C-7): sc-514586

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-4, also known as SPSB4 (splA/ryanodine receptor domain and SOCS box containing 4), is a 273 amino acid protein that localizes to the cytoplasm and contains one SOCS box domain and one B30.2/SPRY domain. Functioning as a substrate recognition component of the Elongin BC complex, SSB-4 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.
- 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 factor-induced Erk-Elk-1-serum response element pathway. *J. Biol. Chem.* 280: 16393-16401.

CHROMOSOMAL LOCATION

Genetic locus: SPSB4 (human) mapping to 3q23; Spsb4 (mouse) mapping to 9 E3.3.

SOURCE

SSB-4 (C-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 29-47 near the N-terminus of SSB-4 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SSB-4 (C-7) is available conjugated to agarose (sc-514586 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514586 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514586 PE), fluorescein (sc-514586 FITC), Alexa Fluor® 488 (sc-514586 AF488), Alexa Fluor® 546 (sc-514586 AF546), Alexa Fluor® 594 (sc-514586 AF594) or Alexa Fluor® 647 (sc-514586 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514586 AF680) or Alexa Fluor® 790 (sc-514586 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514586 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

SSB-4 (C-7) is recommended for detection of SSB-4 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for SSB-4 siRNA (h): sc-78045, SSB-4 siRNA (m): sc-153839, SSB-4 shRNA Plasmid (h): sc-78045-SH, SSB-4 shRNA Plasmid (m): sc-153839-SH, SSB-4 shRNA (h) Lentiviral Particles: sc-78045-V and SSB-4 shRNA (m) Lentiviral Particles: sc-153839-V.

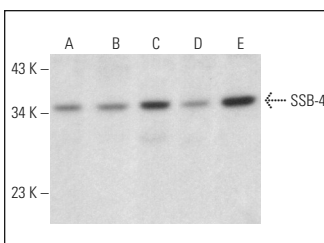
Molecular Weight of SSB-4: 30 kDa.

Positive Controls: SSB-4 (m): 293T Lysate: sc-123789, KNRK whole cell lysate: sc-2214 or F9 cell lysate: sc-2245.

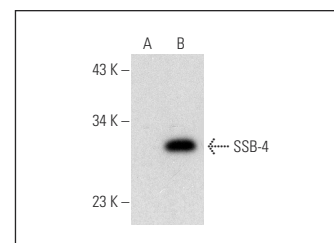
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



SSB-4 (C-7): sc-514586. Western blot analysis of SSB-4 expression in SJRH30 (A), MIA PaCa-2 (B), F9 (C), 3T3-L1 (D) and KNRK (E) whole cell lysates.



SSB-4 (C-7): sc-514586. Western blot analysis of SSB-4 expression in non-transfected: sc-117752 (A) and mouse SSB-4 transfected: sc-123789 (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 for detailed protocols and support products.