

SSB-2 (32-K): sc-100863

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 B and C 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-2 (SprA/ryanodine (SPRY) receptor domain-containing SOCS box protein 2), also known as GGRC9 (gene-rich cluster protein C9), SPSB2 or MGC2519, is a cytoplasmic protein belonging to the SPSB family of proteins that contain a central SPRY domain and a C-terminal SOCS box. The SPRY domain is believed to be a protein-protein interaction motif. Members of the SPSB family are capable of interacting with Met (a receptor for hepatocyte growth factors (HGFs)), and SSB-1 is known to promote HGF signaling. SSB-1, SSB-2 and SSB-4 are also able to interact with PAR4 (prostate apoptosis response protein 4). Mutations in the genes encoding SPSB proteins are associated with several human diseases.

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.
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- 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.
- Yao, S., et al. 2005. Backbone 1H, 13C and 15N assignments of the 25 kDa SPRY domain-containing SOCS box protein 2 (SSB-2). *J. Biomol. NMR* 31: 69-70.
- Masters, S.L., et al. 2005. Genetic deletion of murine SPRY domain-containing SOCS box protein 2 (SSB-2) results in very mild thrombocytopenia. *Mol. Cell. Biol.* 25: 5639-5647.
- Woo, J.S., et al. 2006. Structural basis for protein recognition by B30.2/SPRY domains. *Mol. Cell* 24: 967-976.
- Masters, S.L., et al. 2006. The SPRY domain of SSB-2 adopts a novel fold that presents conserved PAR-4-binding residues. *Nat. Struct. Mol. Biol.* 13: 77-84.

CHROMOSOMAL LOCATION

Genetic locus: SPSB2 (human) mapping to 12p13.31.

SOURCE

SSB-2 (32-K) is a mouse monoclonal antibody raised against recombinant SSB-2 of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 100 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

SSB-2 (32-K) is recommended for detection of SSB-2 of human origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:100-1:5000), immunoprecipitation [1-2 µl per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution to be determined by researcher, dilution range 1:100-1:5000), immunohistochemistry (including paraffin-embedded sections) (starting dilution to be determined by researcher, dilution range 1:50-1:2500) and solid phase ELISA (starting dilution to be determined by researcher, dilution range 1:100-1:5000).

Suitable for use as control antibody for SSB-2 siRNA (h): sc-96168, SSB-2 shRNA Plasmid (h): sc-96168-SH and SSB-2 shRNA (h) Lentiviral Particles: sc-96168-V.

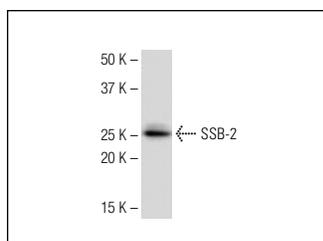
Molecular Weight of SSB-2: 25 kDa.

Positive Controls: A549 cell lysate: sc-2413.

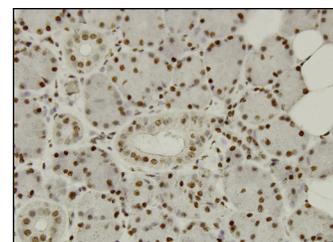
RECOMMENDED SUPPORT REAGENTS

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, 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 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-2 (32-K): sc-100863. Western blot analysis of SSB-2 expression in A549 whole cell lysate.



SSB-2 (32-K): sc-100863. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human salivary gland tissue showing nuclear localization.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.