

ASB-9 (E-13): sc-131427

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. 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. The largest family of SOCS box-containing proteins is the Ankyrin repeat and SOCS box-containing (ASB) protein family. Members of the ASB family include ASB-1 through ASB-18 and are involved in a variety of biological processes. ASB-9 is a 294 amino acid member of this family. It contains six Ankyrin repeats and one SOCS box domain. ASB-9 functions as a ubiquitin ligase and, via its SOCS box domain, it specifically interacts with creatine kinase-B, targeting it for degradation and regulating its expression within the cell. Two isoforms exist for ASB-9 due to alternative splicing events.

REFERENCES

1. Bork, P. 1993. Hundreds of Ankyrin-like repeats in functionally diverse proteins: mobile modules that cross phyla horizontally? *Proteins* 17: 363-374.
2. Hilton, D.J., Richardson, R.T., Alexander, W.S., Viney, E.M., Willson, T.A., Sprigg, N.S., Starr, R., Nicholson, S.E., Metcalf, D. and Nicola, N.A. 1998. Twenty proteins containing a C-terminal SOCS box form five structural classes. *Proc. Natl. Acad. Sci. USA* 95: 114-119.
3. Kile, B.T., Viney, E.M., Willson, T.A., Brodnicki, T.C., Cancilla, M.R., Herlky, A.S., Croker, B.A., Baca, M., Nicola, N.A., Hilton, D.J. and Alexander, W.S. 2000. Cloning and characterization of the genes encoding the Ankyrin repeat and SOCS box-containing proteins ASB-1, ASB-2, ASB-3 and ASB-4. *Gene* 258: 331-341.
4. Kile, B.T., Schulman, B.A., Alexander, W.S., Nicola, N.A., Martin, H.M. and Hilton, D.J. 2002. The SOCS box: a tale of destruction and degradation. *Trends Biochem. Sci.* 27: 235-241.
5. Kohroki, J., Nishiyama, T., Nakamura, T. and Masuho, Y. 2005. ASB proteins interact with Cullin5 and Rbx2 to form E3 ubiquitin ligase complexes. *FEBS Lett.* 579: 6796-6802.
6. Debrincat, M.A., Zhang, J.G., Willson, T.A., Silke, J., Connolly, L.M., Simpson, R.J., Alexander, W.S., Nicola, N.A., Kile, B.T. and Hilton, D.J. 2007. Ankyrin repeat and suppressors of cytokine signaling box protein ASB-9 targets creatine kinase-B for degradation. *J. Biol. Chem.* 282: 4728-4737.

CHROMOSOMAL LOCATION

Genetic locus: ASB9 (human) mapping to Xp22.2.

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 or our catalog for detailed protocols and support products.

SOURCE

ASB-9 (E-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ASB-9 of human origin.

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-131427 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ASB-9 (E-13) is recommended for detection of ASB-9 isoforms 1 and 2 of 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 ASB family members.

Suitable for use as control antibody for ASB-9 siRNA (h): sc-91095, ASB-9 shRNA Plasmid (h): sc-91095-SH and ASB-9 shRNA (h) Lentiviral Particles: sc-91095-V.

Molecular Weight of ASB-9: 32 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, ASB-9 (h): 293 Lysate: sc-110869 or ASB-9 (h2): 293 Lysate: sc-113269.

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.