SANTA CRUZ BIOTECHNOLOGY, INC.

ASB-9 (E-12): sc-166723

SANTA CRUZ BIOTECHNOLOGY

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 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., et al. 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., et al. 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., et al. 2002. The SOCS box: a tale of destruction and degradation. Trends Biochem. Sci. 27: 235-241.
5. Kohroki, J., et al. 2005. ASB proteins interact with Cullin5 and Rbx2 to form E3 ubiquitin ligase complexes. FEBS Lett. 579: 6796-6802.
6. Debrincat, M.A., et al. 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.

SOURCE

ASB-9 (E-12) is a mouse monoclonal antibody raised against amino acids 1-70 mapping at the N-terminus of ASB-9 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ASB-9 (E-12) is available conjugated to agarose (sc-166723 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-166723 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166723 PE), fluorescein (sc-166723 FITC), Alexa Fluor® 488 (sc-166723 AF488), Alexa Fluor® 546 (sc-166723 AF546), Alexa Fluor® 594 (sc-166723 AF594) or Alexa Fluor® 647 (sc-166723 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166723 AF680) or Alexa Fluor® 790 (sc-166723 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ASB-9 (E-12) is recommended for detection of ASB-9 of 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), immunohistochemistry (including paraffin-embedded sections) (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 ASB-9 siRNA (h): sc-91095, ASB-9 shRNA Plasmid (h): sc-91095-SH and ASB-9 shRNA (h) Lentiviral Particles: sc-91095-V.

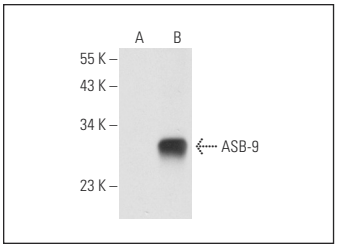
Molecular Weight of ASB-9: 32 kDa.

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

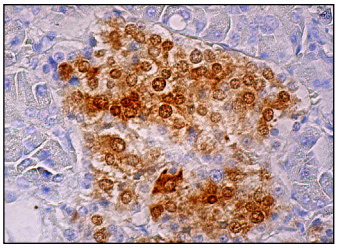
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



ASB-9 (E-12): sc-166723. Western blot analysis of ASB-9 expression in non-transfected: sc-110760 (**A**) and human ASB-9 transfected: sc-113269 (**B**) 293 whole cell lysates.



ASB-9 (E-12): sc166723. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic and nuclear staining of Islets of Langerhans.

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.