

ASB-4 (D-14): sc-162548

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. Four members of the ankyrin repeat and SOCS box-containing (ASB) protein family are identified and termed as ASB-1, ASB-2, ASB-3, and ASB-4. ASB-4 is a 426 amino acid protein that contains 6 ANK repeats and one SOCS box domain. ASB-4 is thought to be a substrate-recognition component of the SCF-like ECS (Elongin-Cullin-SOCS-box protein) E3 ubiquitin-protein ligase complex, which mediates the ubiquitination 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. 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.
- Kile, B.T., et al. 2001. Functional analysis of ASB-1 using genetic modification in mice. *Mol. Cell. Biol.* 21: 6189-6197.
- Guibal, F.C., et al. 2001. ASB-2 inhibits growth and promotes commitment in Myeloid Leukemia cells. *J. Biol. Chem.* 277: 218-224.
- Kohroki, J., et al. 2001. ATRA-regulated ASB-2 gene induced in differentiation of HL-60 leukemia cells. *FEBS Lett.* 505: 223-228.
- Kile, B.T., et al. 2002. The SOCS box: a tale of destruction and degradation. *Trends Biochem. Sci.* 27: 235-241.
- Li, J.Y., et al. 2005. Arcuate nucleus transcriptome profiling identifies ankyrin repeat and suppressor of cytokine signalling box-containing protein 4 as a gene regulated by fasting in central nervous system feeding circuits. *J. Neuroendocrinol.* 17: 394-404.
- Ferguson, J.E., et al. 2007. ASB4 is a hydroxylation substrate of FIH and promotes vascular differentiation via an oxygen-dependent mechanism. *Mol. Cell. Biol.* 27: 6407-6419.

CHROMOSOMAL LOCATION

Genetic locus: ASB4 (human) mapping to 7q21.3; Asb4 (mouse) mapping to 6 A1.

SOURCE

ASB-4 (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ASB-4 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-162548 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ASB-4 (D-14) is recommended for detection of ASB-4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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); non cross-reactive with other ASB family members.

ASB-4 (D-14) is also recommended for detection of ASB-4 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ASB-4 siRNA (h): sc-89652, ASB-4 siRNA (m): sc-141291, ASB-4 shRNA Plasmid (h): sc-89652-SH, ASB-4 shRNA Plasmid (m): sc-141291-SH, ASB-4 shRNA (h) Lentiviral Particles: sc-89652-V and ASB-4 shRNA (m) Lentiviral Particles: sc-141291-V.

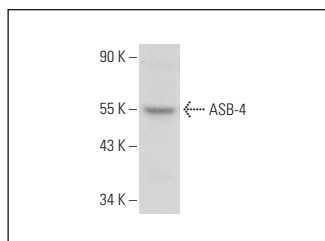
Molecular Weight of ASB-4: 48 kDa.

Positive Controls: MDA-MB-435S whole cell lysate: sc-364184.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



ASB-4 (D-14): sc-162548. Western blot analysis of ASB-4 expression in MDA-MB-435S whole cell lysate.

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 or our catalog for detailed protocols and support products.