



## ASB-18 siRNA (m): sc-141290

### BACKGROUND

ASB-18 (ankyrin repeat and SOCS box-containing 18), also known as ASB18, is a 466 amino acid protein that contains 6 ANK repeats and one SOCS box domain, which governs interaction with the Elongin BC complex, an adapter module in E3 ubiquitin-protein ligase complexes. ASB-18, like other ASB family proteins, interacts with CUL-5-Rbx2 to form E3 ubiquitin ligases and plays a significant role in ubiquitination-mediated pathways. ASB-18 may function as a substrate-recognition component of an SCF-like ECS (Elongin-Cullin-SOCS-box protein) E3 ubiquitin-protein ligase complex, which regulates ubiquitination and subsequent proteasomal degradation of target proteins. Conserved in chimpanzee, dog, mouse, chicken and zebrafish, ASB-18 exists as two alternatively spliced isoforms and is encoded by a gene that maps to human chromosome 2q37.2.

### REFERENCES

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2. Zhang, J.G., et al. 2001. The SOCS box of suppressor of cytokine signaling-1 is important for inhibition of cytokine action *in vivo*. *Proc. Natl. Acad. Sci. USA* 98: 13261-13265.
3. Kile, B.T., et al. 2002. The SOCS box: a tale of destruction and degradation. *Trends Biochem. Sci.* 27: 235-241.
4. Sogaard, M., et al. 2005. Subtelomeric study of 132 patients with mental retardation reveals 9 chromosomal anomalies and contributes to the delineation of submicroscopic deletions of 1pter, 2qter, 4pter, 5qter and 9qter. *BMC Med. Genet.* 6: 21.
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. Li, J.Y., et al. 2007. Ankyrin repeat and SOCS box containing protein 4 (ASB-4) interacts with GPS1 (CSN1) and inhibits c-Jun NH<sub>2</sub>-terminal kinase activity. *Cell. Signal.* 19: 1185-1192.
7. Norris, J.M., et al. 2009. Genome-wide association study and follow-up analysis of adiposity traits in Hispanic Americans: the IRAS Family Study. *Obesity* 17: 1932-1941.

### CHROMOSOMAL LOCATION

Genetic locus: Asb18 (mouse) mapping to 1 D.

### PRODUCT

ASB-18 siRNA (m) is a target-specific 19-25 nt siRNA designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ASB-18 shRNA Plasmid (m): sc-141290-SH and ASB-18 shRNA (m) Lentiviral Particles: sc-141290-V as alternate gene silencing products.

### RESEARCH USE

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

### STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNases and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

### APPLICATIONS

ASB-18 siRNA (m) is recommended for the inhibition of ASB-18 expression in mouse cells.

### SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10  $\mu$ M in 66  $\mu$ l. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

### RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor ASB-18 gene expression knockdown using RT-PCR Primer: ASB-18 (m)-PR: sc-141290-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.