SANTA CRUZ BIOTECHNOLOGY, INC.

ASB-18 siRNA (h): sc-94842

BACKGROUND

ASB-18 (ankyrin repeat and SOCS box-containing 18), also known as ASB18, is a 466 amino acid protein that contains six 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, canine, 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

1. Breen, M., et al. 1997. Genetical and physical assignments of equine microsatellites—first integration of anchored markers in horse genome mapping. Mamm. Genome 8: 267-273.
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_2-terminal kinase activity. Cell. Signal. 19: 1185-1192.

CHROMOSOMAL LOCATION

Genetic locus: ASB18 (human) mapping to 2q37.2.

PRODUCT

ASB-18 siRNA (h) is a pool of 2 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ASB-18 shRNA Plasmid (h): sc-94842-SH and ASB-18 shRNA (h) Lentiviral Particles: sc-94842-V as alternate gene silencing products.

For independent verification of ASB-18 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-94842A and sc-94842B.

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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

ASB-18 siRNA (h) is recommended for the inhibition of ASB-18 expression in human 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 µM in 66 µl. 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 (h)-PR: sc-94842-PR (20 µl). 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 for detailed protocols and support products.