SANTA CRUZ BIOTECHNOLOGY, INC.

SSB-3 siRNA (h): sc-93107

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 BC complex, thereby mediating protein degradation. 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. SSB-3 (SPRY domain-containing SOCS box protein 3), also known as SPSB3, is a 355 amino acid protein that contains one SOCS box domain a B30.2/SPRY domain. Functioning as a substrate recognition component of the Elongin BC complex, SSB-3 plays a role in the ubiquitination and subsequent proteasomal degradation of target proteins.

REFERENCES

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2. Nicola, N.A. and Greenhalgh, C.J. 2000. The suppressors of cytokine signaling (SOCS) proteins: important feedback inhibitors of cytokine action. Exp. Hematol. 28: 1105-1112.
3. Larsen, L. and Röpke, C. 2002. Suppressors of cytokine signalling: SOCS. APMIS 110: 833-844.
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. Kamura, T., Maenaka, K., Kotoshiba, S., Matsumoto, M., Kohda, D., Conaway, R.C., Conaway, J.W. and Nakayama, K.I. 2004. VHL-box and SOCS-box domains determine binding specificity for Cul2-Rbx1 and Cul5-Rbx2 modules of ubiquitin ligases. Genes Dev. 18: 3055-3065.

CHROMOSOMAL LOCATION

Genetic locus: SPSB3 (human) mapping to 16p13.3.

PRODUCT

SSB-3 siRNA (h) is a pool of 3 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 SSB-3 shRNA Plasmid (h): sc-93107-SH and SSB-3 shRNA (h) Lentiviral Particles: sc-93107-V as alternate gene silencing products.

For independent verification of SSB-3 (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-93107A, sc-93107B and sc-93107C.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

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

SSB-3 siRNA (h) is recommended for the inhibition of SSB-3 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 SSB-3 gene expression knockdown using RT-PCR Primer: SSB-3 (h)-PR: sc-93107-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

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