SANTA CRUZ BIOTECHNOLOGY, INC.

RBP-L siRNA (h): sc-76372

BACKGROUND

Recombination signal binding protein for immunoglobulin κ J region-like (RBP-L), whose alternative names include recombining binding protein suppressor of hairless-like protein, SUH, RBPJL, SUHL and RBPSUHL, is a 516 amino acid transcription factor belonging to the suppressor of Hairless [Su(H)] family. RBP-L is closely related to RBP-Jκ (recombination signal binding protein Jκ), a transcription factor involved in the Notch signaling pathway. RBP-L binds DNA sequences nearly identical to that of RBP-Jκ, however, RBP-L does not interact with Notch receptors. RBP-L localizes to the nucleus and is known to interact weakly with EBNA2 (Epstein-Barr virus nuclear antigen-2) to activate transcription. RBP-L contains one IPT/TIG domain and shows almost exclusive expression in lung. The gene encoding RBP-L maps to human chromosome 20q13.12.

REFERENCES

1. Amakawa, R., et al. 1993. Human Jκ recombination signal binding protein gene (IGKJRB): comparison with its mouse homologue. Genomics 17: 306-315.
2. Waltzer, L., et al. 1994. The human Jκ recombination signal sequence binding protein (RBP-J κ) targets the Epstein-Barr virus EBNA2 protein to its DNA responsive elements. EMBO J. 13: 5633-5638.
3. Minoguchi, S., et al. 1997. RBP-L, a transcription factor related to RBP-Jκ. Mol. Cell. Biol. 17: 2679-2687.
4. Tani, S., et al. 1999. Chromosomal mapping of two RBP-J-related genes: Kyo-T and RBP-L. J. Hum. Genet. 44: 73-75.
5. Beres, T.M., et al. 2006. PTF1 is an organ-specific and Notch-independent basic helix-loop-helix complex containing the mammalian suppressor of hairless (RBP-J) or its paralogue, RBP-L. Mol. Cell. Biol. 26: 117-130.

CHROMOSOMAL LOCATION

Genetic locus: RBPJL (human) mapping to 20q13.12.

PRODUCT

RBP-L 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 RBP-L shRNA Plasmid (h): sc-76372-SH and RBP-L shRNA (h) Lentiviral Particles: sc-76372-V as alternate gene silencing products.

For independent verification of RBP-L (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-76372A, sc-76372B and sc-76372C.

RESEARCH USE

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

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

RBP-L siRNA (h) is recommended for the inhibition of RBP-L 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 RBP-L gene expression knockdown using RT-PCR Primer: RBP-L (h)-PR: sc-76372-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.