

# REPS1 siRNA (h): sc-95145

## BACKGROUND

Ral proteins constitute a distinct family of Ras-related GTPases, are activated by a unique nucleotide exchange factor and inactivated by a specific GTPase-activating protein. REPS1, also known as ralBP1-associated Eps domain-containing protein 1, is a 796 amino acid protein that contains one EF-hand domain and two EH domains. REPS1 is expressed in a variety of tissues, with the strongest expression in heart and testis. Considered a homodimer, REPS1 interacts with Rab11-FIP2, Ral BP-1, Crk and GRB2. REPS1 forms a complex with the SH3 domains of Crk and GRB2 which may link it to an EGF-responsive tyrosine kinase. EGF stimulates phosphorylation on Tyr-residues. REPS1 exists as three alternatively spliced isoforms. The REPS1 gene is conserved in chimpanzee, canine, bovine, mouse, rat, chicken, zebrafish, fruit fly and mosquito, and maps to human chromosome 6q24.1.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: REPS1 (human) mapping to 6q24.1.

## RESEARCH USE

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

## PROTOCOLS

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

## PRODUCT

REPS1 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see REPS1 shRNA Plasmid (h): sc-95145-SH and REPS1 shRNA (h) Lentiviral Particles: sc-95145-V as alternate gene silencing products.

For independent verification of REPS1 (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-95145A, sc-95145B and sc-95145C.

## 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

REPS1 siRNA (h) is recommended for the inhibition of REPS1 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  $\mu$ 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 REPS1 gene expression knockdown using RT-PCR Primer: REPS1 (h)-PR: sc-95145-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.