

REP15 siRNA (m): sc-152804

BACKGROUND

REP15 (rab15 effector protein) is a 236 amino acid protein that localizes to early endosome membrane. REP15 is a binding partner of a RAB GTPase family member, RAB15, that facilitates transferrin receptor recycling from the endocytic recycling compartment. REP15 interaction with RAB15 may require multiple binding sites or a structural motif requiring full-length REP15. REP15 co-localizes with RAB15 and RAB11 on recycling endosomes, but not with RAB15, RAB4 or EEA1 on early endosomes. Although REP15 does not interact with RAB11, the two proteins have similar functions; both regulate vesicular trafficking from recycling endosomes to the plasma membrane. The REP15 gene is conserved in chimpanzee, bovine, mouse and rat, and maps to human chromosome 12p11.22.

REFERENCES

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3. Elferink, L.A. and Strick, D.J. 2005. Functional properties of rab15 effector protein in endocytic recycling. *Meth. Enzymol.* 403: 732-743.
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CHROMOSOMAL LOCATION

Genetic locus: Rep15 (mouse) mapping to 6 G3.

PRODUCT

REP15 siRNA (m) 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see REP15 shRNA Plasmid (m): sc-152804-SH and REP15 shRNA (m) Lentiviral Particles: sc-152804-V as alternate gene silencing products.

For independent verification of REP15 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-152804A and sc-152804B.

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

APPLICATIONS

REP15 siRNA (m) is recommended for the inhibition of REP15 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 μ M in 66 μ 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 REP15 gene expression knockdown using RT-PCR Primer: REP15 (m)-PR: sc-152804-PR (20 μ l). 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.

PROTOCOLS

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