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rabphilin-11 siRNA (m): sc-152670

BACKGROUND

Rabphilin-11, also known as WDR44 (WD repeat-containing protein 44), is a 913 amino acid protein that contains seven WD repeats and may be involved in vesicle and endosome recycling. Acting as a downstream effector for Rab 11, rabphilin-11 colocalizes with Rab 11 along microtubules oriented toward lamellipodia. The Rab 11 protein localizes to sorting endosomes, recycling endosomes, *trans*-Golgi network membranes and post-Golgi secretory vesicles, and is implicated in vesicle recycling. Although rabphilin-11 interacts with the GTP-bound form of Rab 11 during membrane association, rabphilin-11 does not bind to other Rab and Rho small G proteins. Rabphilin-11 is phosphorylated upon DNA damage, probably by Atm or ATR. Existing as three alternatively spliced isoforms, the rabphilin-11 gene is conserved in chimpanzee, canine, bovine, mouse, rat, chicken, zebrafish and *C. elegans*, and maps to human chromosome Xq24.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Wdr44 (mouse) mapping to X A2.

PROTOCOLS

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

PRODUCT

rabphilin-11 siRNA (m) 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see rabphilin-11 shRNA Plasmid (m): sc-152670-SH and rabphilin-11 shRNA (m) Lentiviral Particles: sc-152670-V as alternate gene silencing products.

For independent verification of rabphilin-11 (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-152670A, sc-152670B and sc-152670C.

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

rabphilin-11 siRNA (m) is recommended for the inhibition of rabphilin-11 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 rabphilin-11 gene expression knockdown using RT-PCR Primer: rabphilin-11 (m)-PR: sc-152670-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.