SANTA CRUZ BIOTECHNOLOGY, INC.

GRSP1 siRNA (h): sc-78551

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The Power to Question

BACKGROUND

GRSP1, also designated FERM domain-containing protein 4B, is a 980 amino acid cytoplasmic protein that interacts with GRP1, a protein that may regulate protein sorting and membrane trafficking and control cell adhesion through interaction with integrins. In general, FERM domain-containing proteins are characterized as being responsible for PIP2-regulated membrane binding of Ezrin/Radixin/Moesin proteins, which play a role in formation of membrane-associated cytoskeleton by linking actin filaments to adhesion proteins. In addition to its FERM domain, GRSP1 also contains two coiled-coil domains, which suggests that GRSP1 functions as a scaffolding protein. As a member of GRP1-signaling complexes, GRSP1 is recruited to plasma membrane ruffles in response to Insulin receptor signaling.

REFERENCES

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: FRMD4B (human) mapping to 3p14.1.

PRODUCT

GRSP1 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 GRSP1 shRNA Plasmid (h): sc-78551-SH and GRSP1 shRNA (h) Lentiviral Particles: sc-78551-V as alternate gene silencing products.

For independent verification of GRSP1 (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-78551A, sc-78551B and sc-78551C.

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

GRSP1 siRNA (h) is recommended for the inhibition of GRSP1 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 GRSP1 gene expression knockdown using RT-PCR Primer: GRSP1 (h)-PR: sc-78551-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.