SANTA CRUZ BIOTECHNOLOGY, INC.

ARHGEF10L siRNA (m): sc-141222

BACKGROUND

ARHGEF10L (Rho guanine nucleotide exchange factor (GEF) 10-like), also known as GRINCHGEF, is a 1,279 amino acid protein belonging to the RhoGEF family of GEFs that activate Rho GTPases. Conserved in chimpanzee, canine, bovine, mouse and zebrafish, ARHGEF10L shares 60% similarity with ARHGEF10 and 44% similarity with ARHGEF17. ARHGEF10L contains one DH (DBL-homology) domain, one WD40-like domain and two membrane-spanning sequences. Consisting of approximately forty exons and existing as five alternatively spliced isoforms, ARHGEF10L functions as a GEF for Rho A, Rho B and Rho C. ARHGEF10L localizes to cytoplasm and is expressed in heart, liver, skeletal muscle, kidney and pancreas. Encoded by a gene that maps to human chromosome 1p36.13, ARHGEF10L resides in an area in which common 1p36 variants are linked to cutaneous basal cell carcinoma, but not to melanoma or pigmentation traits.

REFERENCES

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4. Yamada, Y., et al. 2008. Identification of prognostic biomarkers in gastric cancer using endoscopic biopsy samples. Cancer Sci. 99: 2193-2199.
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CHROMOSOMAL LOCATION

Genetic locus: Arhgef10l (mouse) mapping to 4 D3.

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.

PRODUCT

ARHGEF10L 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see ARHGEF10L shRNA Plasmid (m): sc-141222-SH and ARHGEF10L shRNA (m) Lentiviral Particles: sc-141222-V as alternate gene silencing products.

For independent verification of ARHGEF10L (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-141222A and sc-141222B.

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

ARHGEF10L siRNA (m) is recommended for the inhibition of ARHGEF10L 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 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 ARHGEF10L gene expression knockdown using RT-PCR Primer: ARHGEF10L (m)-PR: sc-141222-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.