SANTA CRUZ BIOTECHNOLOGY, INC.

TRABD2B siRNA (h): sc-88454

BACKGROUND

TRABD2B (TRAB domain-containing protein 2B), also known as TIKI2 (metalloprotease TIKI2), is a 517 amino acid single-pass type I membrane protein that belongs to the TIKI family. TIKI proteins were named in reference to a mythological large-headed humanoid, as overexpression of TIKI1 (TRABD2A) in *Xenopus* causes head enlargement. TRABD2B and TRABD2A are required for proper head formation by acting as negative regulators of the Wnt signaling pathway. TRABD2B functions as a metalloprotease, which negatively regulates the Wnt signaling pathway by cleaving Wnt-3a and Wnt-5. After cleavage the Wnt proteins become oxidized and form disulfide-bond oligomers, resulting in inactivation. TRABD2B is inhibited by 1,10-phenanthroline, a metalloprotease inhibitor, and EDTA.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: TRABD2B (human) mapping to 1p33.

PRODUCT

TRABD2B 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 TRABD2B shRNA Plasmid (h): sc-88454-SH and TRABD2B shRNA (h) Lentiviral Particles: sc-88454-V as alternate gene silencing products.

For independent verification of TRABD2B (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-88454A, sc-88454B and sc-88454C.

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

TRABD2B siRNA (h) is recommended for the inhibition of TRABD2B 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 TRABD2B gene expression knockdown using RT-PCR Primer: TRABD2B (h)-PR: sc-88454-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.

PROTOCOLS

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