SANTA CRUZ BIOTECHNOLOGY, INC.

Transcobalamin II siRNA (m): sc-45321

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Transcobalamin I (TCI) and Transcobalamin II (TCII) are secreted proteins belonging to the eukaryotic cobalamin transport proteins family and also to the vitamin B_{12}-binding protein family. The genes encoding these proteins map to chromosome 11q12.1 and 22q12.2, respectively. Transcobalamin I is a constituent of secondary granules in neutrophils, while Transcobalamin II binds cobalamin and mediates its transport into cells. These plasma proteins are expressed in various tissues and secretions.

REFERENCES

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8. Aléssio, A.C., et al. 2007. Polymorphism C776G in the transcobalamin II gene and homocysteine, folate and vitamin B_{12} concentrations. Association with MTHFR C677T and A1298C and MTRR A66G polymorphisms in healthy children. Thromb. Res. 119: 571-577.

CHROMOSOMAL LOCATION

Genetic locus: Tcn2 (mouse) mapping to 11 A1.

PRODUCT

Transcobalamin II 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Transcobalamin II shRNA Plasmid (m): sc-45321-SH and Transcobalamin II shRNA (m) Lentiviral Particles: sc-45321-V as alternate gene silencing products.

For independent verification of Transcobalamin II (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-45321A, sc-45321B and sc-45321C.

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

Transcobalamin II siRNA (m) is recommended for the inhibition of Transcobalamin II 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 Transcobalamin II gene expression knockdown using RT-PCR Primer: Transcobalamin II (m)-PR: sc-45321-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

SELECT PRODUCT CITATIONS

1. Han, S., et al. 2009. Activation of peroxisome proliferator-activated receptor β/δ induces lung cancer growth via peroxisome proliferator-activated receptor coactivator γ-1α. Am. J. Respir. Cell Mol. Biol. 40: 325-331.

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.