SANTA CRUZ BIOTECHNOLOGY, INC.

NPT2c siRNA (h): sc-92956

BACKGROUND

NPT2c (Na^+-dependent phosphate cotransporter 2C), also known as SLC34A3 (solute carrier family 34 member 3), is a 599 amino acid multi-pass membrane protein that maintains inorganic phosphate concentration at the kidney by assisting in the active transport of phosophate through the renal brush border membrane. A member of the SLC34A transporter family, NPT2c is encoded by a gene that maps to human chromosome 9q34.3. Defects in the NPT2c gene are the cause of hereditary hypophosphatemic rickets with hypercalciuria (HHRH), an autosomal recessive disease characterized by rickets, hypophosphatemia and decreased renal phosphate reabsorption.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SLC34A3 (human) mapping to 9q34.3.

PRODUCT

NPT2c 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 NPT2c shRNA Plasmid (h): sc-92956-SH and NPT2c shRNA (h) Lentiviral Particles: sc-92956-V as alternate gene silencing products.

For independent verification of NPT2c (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-92956A, sc-92956B and sc-92956C.

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

NPT2c siRNA (h) is recommended for the inhibition of NPT2c 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 NPT2c gene expression knockdown using RT-PCR Primer: NPT2c (h)-PR: sc-92956-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.