SANTA CRUZ BIOTECHNOLOGY, INC.

NT5C1B siRNA (h): sc-94324

BACKGROUND

NT5C1B (cytosolic 5'-nucleotidase 1B), also known as AIRP (autoimmune infertility-related protein), is a 610 amino acid cytoplasmic protein that belongs to the 5'-nucleotidase type 3 family and exists as four alternatively spliced isoforms. As it dephosphorylates the 5' and 2'(3')-phosphates of deoxyribonucleotides, NT5C1B helps to regulate adenosine levels and is activated by ADP. While it is highly expressed in testis, placenta and pancreas, NT5C1B is expressed at lower levels in heart, kidney, liver and lung. The gene that encodes NT5C1B consists of more than 34,000 bases and maps to human chromosome 2p24.2. Chromosome 2 consists of 237 million bases, encodes over 1,400 genes and makes up approximately 8% of the human genome. A number of genetic diseases are linked to genes on chromosome 2 including Harlequin icthyosis, sitosterolemia and Alström syndrome.

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CHROMOSOMAL LOCATION

Genetic locus: NT5C1B (human) mapping to 2p24.2.

PRODUCT

NT5C1B siRNA (h) 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 NT5C1B shRNA Plasmid (h): sc-94324-SH and NT5C1B shRNA (h) Lentiviral Particles: sc-94324-V as alternate gene silencing products.

For independent verification of NT5C1B (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-94324A and sc-94324B.

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

NT5C1B siRNA (h) is recommended for the inhibition of NT5C1B 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 NT5C1B gene expression knockdown using RT-PCR Primer: NT5C1B (h)-PR: sc-94324-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.