

NT5DC3 siRNA (h): sc-96175

BACKGROUND

NT5DC3 (5'-nucleotidase domain-containing protein 3), also known as GNN (GRP94-neighboring nucleotidase), is a 548 amino acid protein that belongs to the 5'(3')-deoxyribonucleotidase family and exists as two alternatively spliced isoforms. NT5DC3 binds one magnesium ion per subunit and is expressed in brain, placenta, skeletal muscle, pancreas, testis, uterus and small intestine. The gene that encodes NT5DC3 consists of approximately 70,745 bases and maps to human chromosome 12q23. Encoding over 1,100 genes, chromosome 12 comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and trisomy 12p, which causes facial developmental defects and seizure disorders.

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CHROMOSOMAL LOCATION

Genetic locus: NT5DC3 (human) mapping to 12q23.3.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

NT5DC3 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see NT5DC3 shRNA Plasmid (h): sc-96175-SH and NT5DC3 shRNA (h) Lentiviral Particles: sc-96175-V as alternate gene silencing products.

For independent verification of NT5DC3 (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-96175A, sc-96175B and sc-96175C.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

NT5DC3 siRNA (h) is recommended for the inhibition of NT5DC3 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 μ M in 66 μ l. 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 NT5DC3 gene expression knockdown using RT-PCR Primer: NT5DC3 (h)-PR: sc-96175-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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