

NET-5 siRNA (h): sc-95972

BACKGROUND

The tetraspanin family is a group of cell surface proteins that regulate cell development, activation, growth and motility. Each member contains four hydrophobic domains and participates in the mediation of signal transduction. NET-5, also known as TSPAN9 (tetraspanin 9), is a 239 amino acid multi-pass membrane protein that belongs to the tetraspanin (TM4SF) family. NET-5 forms a complex with GPVI in the tetraspanin microdomains on the platelet surface, and is encoded by a gene that maps to human chromosome 12p13.33. Chromosome 12 encodes over 1,100 genes and 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: TSPAN9 (human) mapping to 12p13.33.

RESEARCH USE

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

PRODUCT

NET-5 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 NET-5 shRNA Plasmid (h): sc-95972-SH and NET-5 shRNA (h) Lentiviral Particles: sc-95972-V as alternate gene silencing products.

For independent verification of NET-5 (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-95972A, sc-95972B and sc-95972C.

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

NET-5 siRNA (h) is recommended for the inhibition of NET-5 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 NET-5 gene expression knockdown using RT-PCR Primer: NET-5 (h)-PR: sc-95972-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.