SANTA CRUZ BIOTECHNOLOGY, INC.

# NET-4 siRNA (h): sc-89102

## BACKGROUND

NET-4, also known as TSPAN5 (tetraspanin 5) or TM4SF9, is a 268 amino acid multi-pass membrane protein that belongs to the tetraspanin family and is thought to play a role in signal transduction events related to cell development, activation, growth and motility. The gene encoding NET-4 maps to human chromosome 4q23, which encodes nearly 6% of the human genome and has the largest gene deserts (regions of the genome with no protein encoding genes) of all of the human chromosomes. Defects in some of the genes located on chromosome 4 are associated with Huntington's disease, Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

## REFERENCES


1. Todd, S.C., Doctor, V.S. and Levy, S. 1998. Sequences and expression of six new members of the tetraspanin/TM4SF family. Biochim. Biophys. Acta 1399: 101-104.
2. Serru, V., Dessen, P., Boucheix, C. and Rubinstein, E. 2000. Sequence and expression of seven new tetraspans. Biochim. Biophys. Acta 1478: 159-163.
3. Berditchevski, F. 2001. Complexes of tetraspanins with integrins: more than meets the eye. J. Cell Sci. 114: 4143-4151.
4. Hübner, K., Windoffer, R., Hutter, H. and Leube, R.E. 2002. Tetraspan vesicle membrane proteins: synthesis, subcellular localization, and functional properties. Int. Rev. Cytol. 214: 103-159.
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## CHROMOSOMAL LOCATION

Genetic locus: TSPAN5 (human) mapping to 4q23.

## PRODUCT

NET-4 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 NET-4 shRNA Plasmid (h): sc-89102-SH and NET-4 shRNA (h) Lentiviral Particles: sc-89102-V as alternate gene silencing products.

For independent verification of NET-4 (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-89102A, sc-89102B and sc-89102C.

## 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.

## 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

NET-4 siRNA (h) is recommended for the inhibition of NET-4 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 NET-4 gene expression knockdown using RT-PCR Primer: NET-4 (h)-PR: sc-89102-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.