SANTA CRUZ BIOTECHNOLOGY, INC.

NET-7 siRNA (h): sc-90664

BACKGROUND

NET-7, also known as TSPAN15 (tetraspanin 15) or TM4SF15 (transmembrane 4 superfamily member 15), is a 294 amino acid multi-pass membrane protein that belongs to the transmembrane 4 superfamily, also known as the tetraspanin family. Members of the tetraspanin family are cell-surface proteins that are characterized by the presence of four hydrophobic domains and mediate signal transduction events that play a role in the regulation of cell development, activation, growth, motility, differentiation, and cancer. Considered molecular facilitators, tetraspanin proteins may regulate vesicle fusion and fission.

REFERENCES

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2. Hemler, M.E. 2003. Tetraspanin proteins mediate cellular penetration, invasion, and fusion events and define a novel type of membrane microdomain. Annu. Rev. Cell Dev. Biol. 19: 397-422.
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4. Tarrant, J.M., Robb, L., van Spriel, A.B. and Wright, M.D. 2003. Tetraspanins: molecular organisers of the leukocyte surface. Trends Immunol. 24: 610-617.
5. Wright, M.D., Moseley, G.W. and van Spriel, A.B. 2004. Tetraspanin microdomains in immune cell signalling and malignant disease. Tissue Antigens 64: 533-542.
6. Levy, S. and Shoham, T. 2005. The tetraspanin web modulates immune-signalling complexes. Nat. Rev. Immunol. 5: 136-148.
7. Garcia-España, A., Chung, P.J., Sarkar, I.N., Stiner, E., Sun, T.T. and Desalle, R. 2008. Appearance of new tetraspanin genes during vertebrate evolution. Genomics 91: 326-334.

CHROMOSOMAL LOCATION

Genetic locus: TSPAN15 (human) mapping to 10q22.1.

PRODUCT

NET-7 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-7 shRNA Plasmid (h): sc-90664-SH and NET-7 shRNA (h) Lentiviral Particles: sc-90664-V as alternate gene silencing products.

For independent verification of NET-7 (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-90664A, sc-90664B and sc-90664C.

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-7 siRNA (h) is recommended for the inhibition of NET-7 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-7 gene expression knockdown using RT-PCR Primer: NET-7 (h)-PR: sc-90664-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

SELECT PRODUCT CITATIONS

1. Barbaud, A., et al. 2024. GW501516-mediated targeting of tetraspanin 15 regulates ADAM10-dependent N-cadherin cleavage in invasive bladder cancer cells. Cells 13: 708.

RESEARCH USE

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