SANTA CRUZ BIOTECHNOLOGY, INC.

NET-2 siRNA (h): sc-89361

BACKGROUND

NET-2, also known as Tetraspanin-12 and Transmembrane 4 superfamily member 12, is a 305 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. Specifically, NET-2 plays a central role in retinal vascularization via regulation of NORRIN signal transduction. NET-2 also regulates membrane proteinases such as MT-MMP-1 and ADAM10. There are two isoforms of NET-2 which are produced as a result of alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: TSPAN12 (human) mapping to 7q31.31.

PROTOCOLS

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

PRODUCT

NET-2 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-2 shRNA Plasmid (h): sc-89361-SH and NET-2 shRNA (h) Lentiviral Particles: sc-89361-V as alternate gene silencing products.

For independent verification of NET-2 (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-89361A, sc-89361B and sc-89361C.

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-2 siRNA (h) is recommended for the inhibition of NET-2 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-2 gene expression knockdown using RT-PCR Primer: NET-2 (h)-PR: sc-89361-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.