

Teneurin-2 siRNA (m): sc-154190

BACKGROUND

Teneurins represent a highly conserved family of four type II transmembrane proteins in vertebrates. They exist as homodimers and participate in homophilic interactions. Teneurin-2, also known as ODZ2 (odz, odd Oz/ten-μ homolog 2), TNM2 (tenascin-M2) or TEN-M2, is a 2,774 single-pass type II membrane protein that is highly expressed in heart, brain, liver and kidney, and weakly expressed in lung and testis. Belonging to the tenascin family and the Teneurin subfamily, Teneurin-2 is thought to function as a cellular signal transducer. Existing as a homodimer, Teneurin-2 contains eight EGF-like domains, five NHL repeats, a teneurin N-terminal domain and twenty-three YD repeats. The cytoplasmic proline-rich regions of Teneurin-2 may serve as docking domains for intracellular SH3-containing proteins. Teneurin-2 is encoded by the ODZ2 gene, which is located on human chromosome 5q34.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Tenm2 (mouse) mapping to 11 A4.

PRODUCT

Teneurin-2 siRNA (m) 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 Teneurin-2 shRNA Plasmid (m): sc-154190-SH and Teneurin-2 shRNA (m) Lentiviral Particles: sc-154190-V as alternate gene silencing products.

For independent verification of Teneurin-2 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-154190A, sc-154190B and sc-154190C.

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

Teneurin-2 siRNA (m) is recommended for the inhibition of Teneurin-2 expression in mouse 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 Teneurin-2 gene expression knockdown using RT-PCR Primer: Teneurin-2 (m)-PR: sc-154190-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.