SANTA CRUZ BIOTECHNOLOGY, INC.

Morc4 siRNA (h): sc-91331

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The Power to Question

BACKGROUND

The Microrchidia (Morc) family of proteins includes four predicted members in human (Morc1, Morc2, Morc3 and Morc4) and five in mice (Morc1, Morc2a, Morc2b, Morc3 and Morc4). Morc4 (MORC family CW-type zinc finger protein 4), also known as ZCWCC2 (Zinc finger CW-type coiled-coil domain protein 2), is a 937 amino acid protein that contains a CW-type zinc finger, HATPase-c domain, nuclear matirx-binding domain, nuclear localization signals and a coiled-coil region. Ubiquitously expressed at low levels, Morc4 shows highest expression levels in testis and placenta. B-cells of patients with diffuse large B-cell lymphoma show higher levels of Morc4 mRNA than normal B-cells, suggesting that Morc4 is a potential lymphoma biomarker.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MORC4 (human) mapping to Xq22.3.

RESEARCH USE

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

PRODUCT

Morc4 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 Morc4 shRNA Plasmid (h): sc-91331-SH and Morc4 shRNA (h) Lentiviral Particles: sc-91331-V as alternate gene silencing products.

For independent verification of Morc4 (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-91331A, sc-91331B and sc-91331C.

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

Morc4 siRNA (h) is recommended for the inhibition of Morc4 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 Morc4 gene expression knockdown using RT-PCR Primer: Morc4 (h)-PR: sc-91331-PR (20 µl). 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.