SANTA CRUZ BIOTECHNOLOGY, INC.

HOM-TES-103 siRNA (m): sc-146068

BACKGROUND

Intermediate filaments are composed of two-chain, a-helical, coiled-coil molecules arranged on an imperfect helical lattice. They have been widely used as markers for distinguishing individual cell types within a tissue and identifying the origins of metastatic tumors. Vimentin is a general marker of cells originating in the mesenchyme and is frequently co-expressed with other members of the intermediate filament family, such as the cytokeratins, in certain neoplasms. Vimentin and Desmin, a related class III intermediate filament, are both expressed during skeletal muscle development. Desmuslin links Desmin to the extracellular matrix and provides structural support in muscle. HOM-TES-103, also known as intermediate filament family orphan 1 (IFFO1), is a 559 amino acid protein that belongs to the intermediate filament family. Ubiquitously expressed, HOM-TES-103 exists as seven alternatively spliced isoforms.

REFERENCES

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4. Upadhyay, R., D'Souza, R., Sonawane, S., Gaonkar, R., Pathak, S., Jhadav, A. and Balasinor, N.H. 2011. Altered phosphorylation and distribution status of vimentin in rat seminiferous epithelium following 17β-estradiol treatment. Histochem. Cell Biol. 136: 543-555.
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CHROMOSOMAL LOCATION

Genetic locus: Iffo1 (mouse) mapping to 6 F3.

PRODUCT

HOM-TES-103 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 HOM-TES-103 shRNA Plasmid (m): sc-146068-SH and HOM-TES-103 shRNA (m) Lentiviral Particles: sc-146068-V as alternate gene silencing products.

For independent verification of HOM-TES-103 (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-146068A, sc-146068B and sc-146068C.

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

HOM-TES-103 siRNA (m) is recommended for the inhibition of HOM-TES-103 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 HOM-TES-103 gene expression knockdown using RT-PCR Primer: HOM-TES-103 (m)-PR: sc-146068-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.

PROTOCOLS

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