SANTA CRUZ BIOTECHNOLOGY, INC.

HOM-TES-103 siRNA (h): sc-96206

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 (human) mapping to 12p13.31.

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.

PRODUCT

HOM-TES-103 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 HOM-TES-103 shRNA Plasmid (h): sc-96206-SH and HOM-TES-103 shRNA (h) Lentiviral Particles: sc-96206-V as alternate gene silencing products.

For independent verification of HOM-TES-103 (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-96206A, sc-96206B and sc-96206C.

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 (h) is recommended for the inhibition of HOM-TES-103 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 HOM-TES-103 gene expression knockdown using RT-PCR Primer: HOM-TES-103 (h)-PR: sc-96206-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.