SANTA CRUZ BIOTECHNOLOGY, INC.

Tβ-4 Y-linked siRNA (h): sc-91569

BACKGROUND

Tβ-4 Y-linked, also known as TMSB4Y (thymosin β-4, Y-chromosomal) or TB4Y, is a 44 amino acid cytoplasmic protein that belongs to the thymosin β family. Tβ-4 Y-linked plays an important role in the organization of the cytoskeleton. Binding to and sequestering actin monomers (G actin), Tβ-4 Y-linked inhibits actin polymerization. The gene that encodes Tβ-4 Y-linked maps to human chromosome Yq11.221. The Y chromosome contains about 86 genes encoded within approximately 58 million base pairs, and is the human sex determining chromosome necessary for male development. Deletion or defect of any gene residing on the Y chromosome is not lethal, however it would impair masculine development and function.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: TMSB4Y (human) mapping to Yq11.221.

PRODUCT

Tβ-4 Y-linked 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 Tβ-4 Y-linked shRNA Plasmid (h): sc-91569-SH and Tβ-4 Y-linked shRNA (h) Lentiviral Particles: sc-91569-V as alternate gene silencing products.

For independent verification of Tβ-4 Y-linked (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-91569A, sc-91569B and sc-91569C.

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

Tβ-4 Y-linked siRNA (h) is recommended for the inhibition of Tβ-4 Y-linked 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 Tβ-4 Y-linked gene expression knockdown using RT-PCR Primer: Tβ-4 Y-linked (h)-PR: sc-91569-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.