SANTA CRUZ BIOTECHNOLOGY, INC.

FOXQ1 siRNA (m): sc-60661

BACKGROUND

The FOX family of transcription factors share a common DIUA binding domain termed a winged-helix or forkhead domain. Many FOX proteins play important roles in development, metabolism, cancer and aging. FOXQ1 is mutant in satin homozygous mice. Satin mice are characterized by having silky coats with high sheen as a result of structurally abnormal medulla cells and defects in the differentiation of the hair shaft. Satin mice also display suppressed natural killer cell function and alloimmune cytotoxic T cell function, which implicates FOXQ1 in lymphocyte development. FOXQ1 is predominantly expressed during embryogenesis and in a tissue-restricted expression pattern in adult tissues, including stomach, trachea, bladder and salivary gland. FOXQ1 is over-expressed in colorectal adenocarcinoma and lung carcinoma cell lines.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Foxq1 (mouse) mapping to 13 A3.2.

PRODUCT

FOXQ1 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 FOXQ1 shRNA Plasmid (m): sc-60661-SH and FOXQ1 shRNA (m) Lentiviral Particles: sc-60661-V as alternate gene silencing products.

For independent verification of FOXQ1 (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-60661A, sc-60661B and sc-60661C.

RESEARCH USE

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

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

FOXQ1 siRNA (m) is recommended for the inhibition of FOXQ1 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.

GENE EXPRESSION MONITORING

FOXQ1 (C-9): sc-166265 is recommended as a control antibody for monitoring of FOXQ1 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor FOXQ1 gene expression knockdown using RT-PCR Primer: FOXQ1 (m)-PR: sc-60661-PR (20 µl, 513 bp). 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.