SANTA CRUZ BIOTECHNOLOGY, INC.

# FOXJ3 siRNA (m): sc-62340

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*The Power to Question*

## BACKGROUND

FOXJ3 (forkhead box protein J3) is a 622 amino acid protein encoded by the human gene FOXJ3. FOXJ3, having one forkhead DNA-binding domain, is a novel forkhead factor and, as such, belongs to the forkhead protein family. The HNF3/forkhead family includes a large number of transcription factors that share a structurally related DNA binding domain. Forkhead factors are known to play important roles both during development and in adults. FOXJ3 is expressed in neuroectoderm, in neural crest, and in many structures derived from neural crest cells, such as facioacoustic, trigeminal and dorsal root ganglia. Stripes of FOXJ3 expression appear in the location of myotomes and expand ventrally in a pattern similar to the developing body wall musculature. Developing limbs have a complex pattern of FOXJ3 expression that at E12.5 colocalizes with the condensed mesenchyme of the skeletal primordia.

## REFERENCES


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3. Wijchers, P.J., Hoekman, M.F., Burbach, J.P. and Smidt, M.P. 2006. Identification of forkhead transcription factors in cortical and dopaminergic areas of the adult murine brain. Brain Res. 1068: 23-33.
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5. Myatt, S.S. and Lam, E.W. 2007. The emerging roles of forkhead box (Fox) proteins in cancer. Nat. Rev. Cancer 7: 847-859.
6. Han, C., Launchbury, R., Bates,G.J., Fox, S.B., Leek, R.D., Harris, A.L. and Banham, A.H. 2007. Expression of the forkhead transcription factor FOXP1 is associated with that of estrogen receptorbeta in primary invasive breast carcinomas. Breast Cancer Res. Treat. 111: 453-459.
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## CHROMOSOMAL LOCATION

Genetic locus: Foxj3 (mouse) mapping to 4 D2.1.

## PRODUCT

FOXJ3 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 FOXJ3 shRNA Plasmid (m): sc-62340-SH and FOXJ3 shRNA (m) Lentiviral Particles: sc-62340-V as alternate gene silencing products.

For independent verification of FOXJ3 (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-62340A, sc-62340B and sc-62340C.

## 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

FOXJ3 siRNA (m) is recommended for the inhibition of FOXJ3 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 FOXJ3 gene expression knockdown using RT-PCR Primer: FOXJ3 (m)-PR: sc-62340-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.