SANTA CRUZ BIOTECHNOLOGY, INC.

FJX1 siRNA (m): sc-145189

BACKGROUND

FJX1 (four-jointed box protein 1), also known as four-jointed protein homolog, is a 437 amino acid protein that belongs to the FJX1/FJ family. FJX1 is highly conserved in vertebrates and is expressed in the peripheral nervous system, epithelial cells of multiple organs and during limb development. FJX1 is processed and secreted as a presumptive ligand and may act as an inhibitor of dendrite extension and branching. In Drosophila, FJX1 is important for growth and differentiation of legs and wings, and for proper development of the eyes. FAT4, an essential gene that has a key role in vertebrate PCP (planar cell polarity), represses FJX1 expression which may lead to cystic diseases in humans.

REFERENCES

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3. Rock, R., Schrauth, S. and Gessler, M. 2005. Expression of mouse dchs1, fjx1, and fat-j suggests conservation of the planar cell polarity pathway identified in Drosophila. Dev. Dyn. 234: 747-755.
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7. Saburi, S., Hester, I., Fischer, E., Pontoglio, M., Eremina, V., Gessler, M., Quaggin, S.E., Harrison, R., Mount, R. and McNeill, H. 2008. Loss of Fat4 disrupts PCP signaling and oriented cell division and leads to cystic kidney disease. Nat. Genet. 40: 1010-1015.

CHROMOSOMAL LOCATION

Genetic locus: Fjx1 (mouse) mapping to 2 E2.

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

FJX1 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 FJX1 shRNA Plasmid (m): sc-145189-SH and FJX1 shRNA (m) Lentiviral Particles: sc-145189-V as alternate gene silencing products.

For independent verification of FJX1 (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-145189A, sc-145189B and sc-145189C.

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

FJX1 siRNA (m) is recommended for the inhibition of FJX1 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 FJX1 gene expression knockdown using RT-PCR Primer: FJX1 (m)-PR: sc-145189-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.