

POU6F2 siRNA (m): sc-152394

BACKGROUND

Tissue-restricted POU domain transcription factors play roles in cellular differentiation and the development of several organs. POU6F2 (POU class 6 homeobox 2), also known as RPF-1 (retina-derived POU domain factor 1), WT5 or WTSL, is a 683 amino acid nuclear protein expressed exclusively in the central nervous system (CNS). POU6F2 localizes to neurons of the dorsal hypothalamus, as well as retinal cells, where it is thought to function as a transcription factor during early amacrine and ganglion cell differentiation. Existing as two alternatively spliced isoforms, POU6F2 contains one homeobox DNA-binding domain, a single POU-specific domain, and is encoded by a gene that maps to human chromosome 7p14.1. POU6F2 defects are associated with Wilms tumor 5 (WT5).

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Pou6f2 (mouse) mapping to 13 A2.

PRODUCT

POU6F2 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see POU6F2 shRNA Plasmid (m): sc-152394-SH and POU6F2 shRNA (m) Lentiviral Particles: sc-152394-V as alternate gene silencing products.

For independent verification of POU6F2 (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-152394A, sc-152394B and sc-152394C.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

POU6F2 siRNA (m) is recommended for the inhibition of POU6F2 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 μ M in 66 μ l. 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 POU6F2 gene expression knockdown using RT-PCR Primer: POU6F2 (m)-PR: sc-152394-PR (20 μ l). 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.