SANTA CRUZ BIOTECHNOLOGY, INC.

UNCX siRNA (m): sc-154925

BACKGROUND

Members of the paired homeobox family play a role in regulating cell development and pattern formation during embryonic stages. UNCX (UNC homeobox), also known as UNCX4.1, is a 531 amino acid nuclear transcription factor involved in neurogenesis and somitogenesis. Containing one homeobox DNA-binding domain, UNCX belongs to the paired homeobox family and UNC4 subfamily. UNCX assists in the formation of connections between hypothalamic neurons and the pituitary, which is necessary for central neurons to deliver hormones into peripheral blood. UNCX also plays a role in maintaining differentiation of the axial skeleton and acts upstream of Pax-9. The gene encoding UNCX maps to human chromosome 7, which houses over 1,000 genes and comprises nearly 5% of the human genome. Chromosome 7 has been linked to osteogenesis imperfecta, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome.

REFERENCES

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7. Asbreuk, C.H., et al. 2006. Neurohypophysial dysmorphogenesis in mice lacking the homeobox gene Uncx4.1. J. Mol. Endocrinol. 36: 65-71.
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CHROMOSOMAL LOCATION

Genetic locus: Uncx (mouse) mapping to 5 G2.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

PRODUCT

UNCX siRNA (m) is a target-specific 19-25 nt siRNA 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 UNCX shRNA Plasmid (m): sc-154925-SH and UNCX shRNA (m) Lentiviral Particles: sc-154925-V as alternate gene silencing products.

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

UNCX siRNA (m) is recommended for the inhibition of UNCX 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 UNCX gene expression knockdown using RT-PCR Primer: UNCX (m)-PR: sc-154925-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.