SANTA CRUZ BIOTECHNOLOGY, INC.

HoxB8 siRNA (m): sc-75282

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Hox proteins are a family of transcription factors that play a role in development and cellular differentiation by regulating downstream target genes. Specifically, the Hox proteins direct DNA-protein and protein-protein interactions that assist in determining the morphologic features associated with the anterior-posterior body axis. Hox proteins are involved in controlling axial patterning, leukemias and hereditary malformations. HoxB8 (homeobox protein Hox-B8), also known as HOX2D or HOX2, is a 243 amino acid nuclear protein that contains one homeobox DNA-binding domain and belongs to the Hox family. Expressed in the developing fetus, HoxB8 functions as a sequence-specific transcription factor that regulates the development of the anterior-posterior axis. HoxB8 expression is upreluated in colorectal cancer, suggesting a role for HoxB8 in tumorigenesis.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Hoxb8 (mouse) mapping to 11 D.

RESEARCH USE

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

PRODUCT

HoxB8 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 HoxB8 shRNA Plasmid (m): sc-75282-SH and HoxB8 shRNA (m) Lentiviral Particles: sc-75282-V as alternate gene silencing products.

For independent verification of HoxB8 (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-75282A, sc-75282B and sc-75282C.

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

HoxB8 siRNA (m) is recommended for the inhibition of HoxB8 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 HoxB8 gene expression knockdown using RT-PCR Primer: HoxB8 (m)-PR: sc-75282-PR (20 µl). 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.