SANTA CRUZ BIOTECHNOLOGY, INC.

ZMYM6 siRNA (m): sc-155669

BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. ZMYM6 (zinc finger, MYM-type 6), also known as ZNF258, ZBED7, Buster2 or ZNF198L4, is a 1,325 amino acid nuclear protein containing eight MYM-type zinc fingers. ZMYM6 is thought to play a role in the regulation of cell morphology and cytoskeletal organization. ZMYM6 is highly expressed in heart, skeletal muscle, kidney and liver tissues, and five isoforms are expressed due to alternative splicing events. The ZMYM6 gene is conserved in chimpanzee, Rhesus monkey, canine, bovine, mouse, and rat and maps to chromosome 1p34.3, which spans about 260 million base pairs and comprises nearly 8% of the human genome.

REFERENCES

1. Smedley, D., Hamoudi, R., Lu, Y.J., Cooper, C. and Shipley, J. 1999. Cloning and mapping of members of the MYM family. Genomics 60: 244-247.
2. Herrmann, C.H. and Mancini, M.A. 2001. The Cdk9 and cyclin T subunits of TAK/P-TEFb localize to splicing factor-rich nuclear speckle regions. J. Cell Sci. 114: 1491-1503.
3. Lin, X., Taube, R., Fujinaga, K. and Peterlin, B.M. 2002. P-TEFb containing cyclin K and Cdk9 can activate transcription via RNA. J. Biol. Chem. 277: 16873-16878.
4. Weise, A., Starke, H., Mrasek, K., Claussen, U. and Liehr, T. 2005. New insights into the evolution of chromosome 1. Cytogenet. Genome Res. 108: 217-222.
5. Bai, S.W., Herrera-Abreu, M.T., Rohn, J.L., Racine, V., Tajadura, V., Suryavanshi, N., Bechtel, S., Wiemann, S., Baum, B. and Ridley, A.J. 2011. Identification and characterization of a set of conserved and new regulators of cytoskeletal organization, cell morphology and migration. BMC Biol. 9: 54.
6. Hayward, A., Ghazal, A., Andersson, G., Andersson, L. and Jern, P. 2013. ZBED evolution: repeated utilization of DNA transposons as regulators of diverse host functions. PLoS ONE 8: e59940.

CHROMOSOMAL LOCATION

Genetic locus: Zmym6 (mouse) mapping to 4 D2.2.

PRODUCT

ZMYM6 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 ZMYM6 shRNA Plasmid (m): sc-155669-SH and ZMYM6 shRNA (m) Lentiviral Particles: sc-155669-V as alternate gene silencing products.

PROTOCOLS

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

ZMYM6 siRNA (m) is recommended for the inhibition of ZMYM6 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 ZMYM6 gene expression knockdown using RT-PCR Primer: ZMYM6 (m)-PR: sc-155669-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.