SANTA CRUZ BIOTECHNOLOGY, INC.

ZMYM4 siRNA (h): sc-88661

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. ZMYM4 (zinc finger, MYM-type 4), also known as ZNF262, is a 1,548 amino acid protein that contains nine MYM-type zinc fingers. ZMYM4 is thought to play a role in the regulation of cell morphology and cytoskeletal organization. Four ZMYM4 isoforms are expressed due to alternative splicing events, and are found in heart, skeletal muscle, kidney and liver. Upon DNA damage, ZMYM4 may be phosphorylated by ATM or ATR. The mRNA encoding ZMYM4 contains a CDIR motif (cell death inhibiting RNA) which binds to HNRPD/AUF1 and HSPB1/HSP27 and can inhibit FN-γ induced apoptosis. The gene encoding ZMYM4 maps to chromosome 1p34.3, which spans about 260 million base pairs and comprises nearly 8% of the human genome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ZMYM4 (human) mapping to 1p34.3.

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

ZMYM4 siRNA (h) 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 ZMYM4 shRNA Plasmid (h): sc-88661-SH and ZMYM4 shRNA (h) Lentiviral Particles: sc-88661-V as alternate gene silencing products.

For independent verification of ZMYM4 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-88661A, sc-88661B and sc-88661C.

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

ZMYM4 siRNA (h) is recommended for the inhibition of ZMYM4 expression in human 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 ZMYM4 gene expression knockdown using RT-PCR Primer: ZMYM4 (h)-PR: sc-88661-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.