SANTA CRUZ BIOTECHNOLOGY, INC.

ZNF264 siRNA (h): sc-97224

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. The majority of zinc finger proteins contain a Krüppel-type DNA binding domain and a KRAB domain, which is thought to interact with KAP1, thereby recruiting histone modifying proteins. ZNF264 is a 627 amino acid protein belonging to the Krüppel C_2H_2-type zinc finger protein family. ZNF264 has one KRAB domain and thirteen C_2H_2 zinc fingers. Due to the presence of these domains, ZNF264 is thought to be involved in transcriptional regulation. ZNF264 is phosphorylated by either ATM or ATR upon DNA damage, possibly indicating a role in DNA repair. Localized to the nucleus, ZNF264 is highly expressed in testis, ovary, kidney, thymus, placenta, brain, lung and prostate and is present at lower levels in liver, heart, spleen, pancreas, small intestine and skeletal muscle.

REFERENCES

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6. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604668. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
7. Shannon, M., et al. 2003. Differential expansion of zinc-finger transcription factor loci in homologous human and mouse gene clusters. Genome Res. 13: 1097-1110.
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CHROMOSOMAL LOCATION

Genetic locus: ZNF264 (human) mapping to 19q13.43.

PROTOCOLS

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

PRODUCT

ZNF264 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 ZNF264 shRNA Plasmid (h): sc-97224-SH and ZNF264 shRNA (h) Lentiviral Particles: sc-97224-V as alternate gene silencing products.

For independent verification of ZNF264 (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-97224A, sc-97224B and sc-97224C.

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

ZNF264 siRNA (h) is recommended for the inhibition of ZNF264 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 ZNF264 gene expression knockdown using RT-PCR Primer: ZNF264 (h)-PR: sc-97224-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.