SANTA CRUZ BIOTECHNOLOGY, INC.

RMI2 siRNA (h): sc-93410

BACKGROUND

C16orf75, also known as BLAP18 (BLM-associated protein of 18 kDa) or RMI2 (RecQ-mediated genome instability protein 2), is a 147 amino acid nuclear protein. Phosphorylated during mitosis, C16orf75 contains one OB DNA-binding domain. C16orf75 is a component of the RMI complex, which contains the proteins Topo IIIα and BLAP75. The RMI complex plays a role in the limiting of DNA crossover formation in cells by processing homologous recombination intermediates. The RMI complex interacts directly with BLM and directs BLM-containing complexes to chromatin and stress-induced nuclear foci. The gene that encodes C16orf75 maps to human chromosome 16p13.13. Chromosome 16 encodes over 900 genes in approximately 90 million base pairs, makes up nearly 3% of human cellular DNA and is associated with a variety of genetic disorders.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: RMI2 (human) mapping to 16p13.13.

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

RMI2 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 RMI2 shRNA Plasmid (h): sc-93410-SH and RMI2 shRNA (h) Lentiviral Particles: sc-93410-V as alternate gene silencing products.

For independent verification of RMI2 (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-93410A, sc-93410B and sc-93410C.

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

RMI2 siRNA (h) is recommended for the inhibition of RMI2 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 RMI2 gene expression knockdown using RT-PCR Primer: RMI2 (h)-PR: sc-93410-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.