SANTA CRUZ BIOTECHNOLOGY, INC.

RMP siRNA (m): sc-106514

BACKGROUND

RMP (RPB5-mediating protein), also known as C19orf2, NNX3 or URI, is a 534 amino acid protein that localizes to the nucleus and belongs to the RNA polymerase II subunit 5-mediating protein family. Expressed ubiquitously, RMP functions as a component of the multi-protein URI complex and is thought to play a role in protein scaffolding that may be involved in transcription and ubiquitination. Multiple isoforms of RMP exist due to alternative splicing events. The gene encoding RMP maps to human chromosome 19, which consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes.

REFERENCES

1. Van Leuven, F., et al. 1998. Molecular cloning of a gene on chromosome 19q12 coding for a novel intracellular protein: analysis of expression in human and mouse tissues and in human tumor cells, particularly Reed-Sternberg cells in Hodgkin disease. Genomics 54: 511-520.
2. Dorjsuren, D., et al. 1998. RMP, a novel RNA polymerase II subunit 5-interacting protein, counteracts transactivation by hepatitis B virus X protein. Mol. Cell. Biol. 18: 7546-7555.
3. Wei, W., et al. 2003. Interaction with general transcription factor IIF (TFIIF) is required for the suppression of activated transcription by RPB5-mediating protein (RMP). Cell Res. 13: 111-120.
4. Gstaiger, M., et al. 2003. Control of nutrient-sensitive transcription programs by the unconventional prefoldin URI. Science 302: 1208-1212.
5. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 603494. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: C80913 (mouse) mapping to 7 B2.

PRODUCT

RMP 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 RMP shRNA Plasmid (m): sc-106514-SH and RMP shRNA (m) Lentiviral Particles: sc-106514-V as alternate gene silencing products.

For independent verification of RMP (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-106514A, sc-106514B and sc-106514C.

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.

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

RMP siRNA (m) is recommended for the inhibition of RMP 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 RMP gene expression knockdown using RT-PCR Primer: RMP (m)-PR: sc-106514-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.