SANTA CRUZ BIOTECHNOLOGY, INC.

RIM-BP3 siRNA (h): sc-75386

BACKGROUND

RIM-binding proteins (RIMBPs) serve as adaptors during vesicle fusion and release by forming links between synaptic-vesicle fusion apparatuses and calcium channels. RIMBP3 has been identified as a novel manchette-associated protein, and three members of RIMBP3 are known to exist: RIMBP3A, RIMBP3B and RIMBP3C. Each form of RIMBP3 exists as a large multidomain protein encoding three SH3-domains and two to three fibronectin III repeats. RIMBP3 plays a role in spermatid development and is required for normal sperm morphology and male fertility. RIMBP3 is found at high levels outside of the nervous system, with especially high expression in testis. RIMBP3C (RIMS binding protein 3C), also known as RIMBP3.3, or RIM-BP3.3, is a 1,545 amino acid protein. The gene encoding RIMBP3C maps to human chromosome 22q11.21.

REFERENCES

1. Hahn, P. 1977. Effect of premature weaning to different diets on the subsequent response to a dietary change. Biol. Neonate 32: 275-279.
2. Mittelstaedt, T. and Schoch, S. 2007. Structure and evolution of RIM-BP genes: identification of a novel family member. Gene 403: 70-79.
3. Zhou, J., et al. 2009. RIM-BP3 is a manchette-associated protein essential for spermiogenesis. Development 136: 373-382.
4. Online Mendelian Inheritance in Man, OMIM™. 2009. Johns Hopkins University, Baltimore, MD. MIM Number: 612701. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: RIMBP3/RIMBP3B/RIMBP3C (human) mapping to 22q11.21.

PRODUCT

RIM-BP3 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 RIM-BP3 shRNA Plasmid (h): sc-75386-SH and RIM-BP3 shRNA (h) Lentiviral Particles: sc-75386-V as alternate gene silencing products.

For independent verification of RIM-BP3 (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-75386A, sc-75386B and sc-75386C.

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

RIM-BP3 siRNA (h) is recommended for the inhibition of RIM-BP3 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 RIM-BP3 gene expression knockdown using RT-PCR Primer: RIM-BP3 (h)-PR: sc-75386-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.

PROTOCOLS

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