

RIM-BP2 siRNA (m): sc-152962

BACKGROUND

RIMS-binding proteins (RIM-BPs) serve as adaptors during vesicle fusion and release by forming links between synaptic-vesicle fusion apparatuses and calcium channels. Specifically, RIM-BP2 (RIMS binding protein 2), also known as RBP2, is a 1,052 amino acid protein that links L-type Ca^{++} CP $\alpha 1\text{D}$, N-type Ca^{++} CP $\alpha 1\text{B}$, Rim1 and Rim2 during synaptic transmission. RIM-BP2 contains three Fibronectin type-III domains and three SH3 domains, which are used to mediate binding to a proline-rich motifs. Existing as three alternatively spliced isoforms, RIM-BP2 is encoded by a gene that maps to human chromosome 12q24.33 and mouse chromosome 5 G1.3.

REFERENCES

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4. Mittelstaedt, T. and Schoch, S. 2007. Structure and evolution of RIM-BP genes: identification of a novel family member. Gene 403: 70-79.
5. Online Mendelian Inheritance in Man, OMIM[™]. 2009. Johns Hopkins University, Baltimore, MD. MIM Number: 611602. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
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CHROMOSOMAL LOCATION

Genetic locus: Rimbp2 (mouse) mapping to 5 G1.3.

PRODUCT

RIM-BP2 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 RIM-BP2 shRNA Plasmid (m): sc-152962-SH and RIM-BP2 shRNA (m) Lentiviral Particles: sc-152962-V as alternate gene silencing products.

For independent verification of RIM-BP2 (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-152962A, sc-152962B and sc-152962C.

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

RIM-BP2 siRNA (m) is recommended for the inhibition of RIM-BP2 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 RIM-BP2 gene expression knockdown using RT-PCR Primer: RIM-BP2 (m)-PR: sc-152962-PR (20 μl). Annealing temperature for the primers should be $55-60^{\circ}\text{C}$ and the extension temperature should be $68-72^{\circ}\text{C}$.

RESEARCH USE

For research use only, not for use in diagnostic procedures.