

Arrestin-C siRNA (m): sc-61997

BACKGROUND

Members of Arrestin/ β -Arrestin protein family are thought to participate in agonist-mediated desensitization of G protein-coupled receptors and cause specific dampening of cellular responses to stimuli such as hormones, neurotransmitters or sensory signals. Arrestin-C, also known as retinal cone arrestin-3, X-arrestin or cArr, is a member of the Arrestin family of proteins. It is predominantly found in the retina and pineal gland and localizes to the inner and outer segments of red-, green- and blue-cone photoreceptors and the inner plexiform regions. Two Arrestin-C isoforms exist due to alternative splicing. Isoform 1 is the mature full length protein and isoform 2 is truncated, ending with an Arginine for amino acid residue 359. Arrestin-C expression is stimulated by retinoic acid. It may play a role in retina-specific signal transduction and bind to photoactivated-phosphorylated red/green opsins. In addition, Arrestin-C forms homodimers and oligomers with β -Arrestins and may regulate β -Arrestin mediated signaling.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Arr3 (mouse) mapping to X C3.

PROTOCOLS

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

PRODUCT

Arrestin-C 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Arrestin-C shRNA Plasmid (m): sc-61997-SH and Arrestin-C shRNA (m) Lentiviral Particles: sc-61997-V as alternate gene silencing products.

For independent verification of Arrestin-C (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-61997A, sc-61997B and sc-61997C.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

Arrestin-C siRNA (m) is recommended for the inhibition of Arrestin-C 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 μ M in 66 μ l. 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 Arrestin-C gene expression knockdown using RT-PCR Primer: Arrestin-C (m)-PR: sc-61997-PR (20 μ l). 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.