SANTA CRUZ BIOTECHNOLOGY, INC.

Clathrin HC siRNA (h): sc-35067

BACKGROUND

Clathrin is a major cytosolic coat protein in pits and vesicles originating from the plasma membrane and the *trans*-Golgi network. In receptor-mediated endocytosis, receptor proteins are englufed by clathrin-coated vesicles. Clathrin is composed of three heavy chains and three light chains which associate non-covalently to form a triskelion structure. Clathrin heavy chain (HC) is composed of a terminal globular domain, a distal segment and a proximal segment containing a light chain binding site. The proximal segment of the Clathrin HC protein is essential for interactions between clathrin heavy chains and light chains which result in the formation of the triskelion structure.

CHROMOSOMAL LOCATION

Genetic locus: CLTC (human) mapping to 17q23.1.

PRODUCT

Clathrin HC siRNA (h) is a pool of 2 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 Clathrin HC shRNA Plasmid (h): sc-35067-SH and Clathrin HC shRNA (h) Lentiviral Particles: sc-35067-V as alternate gene silencing products.

For independent verification of Clathrin HC (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-35067A and sc-35067B.

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

Clathrin HC siRNA (h) is recommended for the inhibition of Clathrin HC 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.

GENE EXPRESSION MONITORING

Clathrin HC (TD.1): sc-12734 is recommended as a control antibody for monitoring of Clathrin HC gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Clathrin HC gene expression knockdown using RT-PCR Primer: Clathrin HC (h)-PR: sc-35067-PR (20 µl, 441 bp). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

SELECT PRODUCT CITATIONS

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4. Li, G., et al. 2010. Internalization of the human nicotinic acid receptor GPR109A is regulated by G_i, GRK2, and arrestin3. J. Biol. Chem. 285: 22605-22618.
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10. Lee, H.R., et al. 2019. 1-palmitoyl-2-linoleoyl-3-acetyl-rac-glycerol (PLAG) rapidly resolves LPS-induced acute lung injury through the effective control of neutrophil recruitment. Front. Immunol. 10: 2177.
11. Baloch, A.S., et al. 2019. Avian flavivirus enters BHK-21 cells by a low pH-dependent endosomal pathway. Viruses 11: 1112.

RESEARCH USE

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