



NECAP 2 siRNA (h): sc-78871

BACKGROUND

Clathrin-coated vesicles (CCVs) select cargo for endocytotic entry into cells and generate carrier vesicles for transport between the endosomal system and trans-Golgi network (TGN). NECAP 1 and NECAP 2 are essential protein paralogues for clathrin-mediated membrane trafficking that are enriched in CCV coats. NECAP 2 (NECAP endocytosis associated 2), also known as adaptin ear-binding coat-associated protein 2, is a 263 amino acid protein belonging to the NECAP family that localizes to the clathrin-coated vesicle membrane. NECAP 2 is encoded by a gene that maps to human chromosome 1p36.13 and exists as three alternatively spliced isoforms. NECAP 2 colocalizes with AP-2 at the plasma membrane by binding AP-2's α -ear domain, and interacts with AP-1, AP-2 and several GAE domain proteins termed GGA1, GGA2 and GGA3.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: NECAP2 (human) mapping to 1p36.13.

PRODUCT

NECAP 2 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see NECAP 2 shRNA Plasmid (h): sc-78871-SH and NECAP 2 shRNA (h) Lentiviral Particles: sc-78871-V as alternate gene silencing products.

For independent verification of NECAP 2 (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-78871A, sc-78871B and sc-78871C.

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

NECAP 2 siRNA (h) is recommended for the inhibition of NECAP 2 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 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 NECAP 2 gene expression knockdown using RT-PCR Primer: NECAP 2 (h)-PR: sc-78871-PR (20 μ l, 446 bp). 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.