SANTA CRUZ BIOTECHNOLOGY, INC.

AP-3σ2 siRNA (m): sc-141136

BACKGROUND

AP-3σ2, also known as AP3S2 (adaptor-related protein complex 3, σ 2 subunit), AP-3 complex σ-3B subunit or clathrin-associated/assembly/adaptor protein, small 4, 22-kD, is a 193 amino acid protein that belongs to the adaptor complexes small subunit family and is ubiquitously expressed. Encoded by a gene that maps to human chromosome 15q26.1, AP-3σ2 interacts with AGAP1 and may play a role in carotid plaque traits. AP-3σ2 is part of the adapter protein complex 3 (AP-3), which is a heterotetramer that consists of two large adaptins (AP-3δ and AP-3β or β-NAP), one medium adaptin (AP-3μ or AP-3μ2) and one small adaptin (σ-type subunit APS1 or AP-3σ2). Associated with the Golgi region and peripheral structures, AP-3σ2 assists in vesicle budding from the Golgi membrane and may be highly engaged in lysosome trafficking.

REFERENCES

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: Ap3s2 (mouse) mapping to 7 D3.

PRODUCT

AP-3σ2 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 AP-3σ2 shRNA Plasmid (m): sc-141136-SH and AP-3σ2 shRNA (m) Lentiviral Particles: sc-141136-V as alternate gene silencing products.

For independent verification of AP-3σ2 (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-141136A, sc-141136B and sc-141136C.

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

AP-3σ2 siRNA (m) is recommended for the inhibition of AP-3σ2 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 AP-3σ2 gene expression knockdown using RT-PCR Primer: AP-3σ2 (m)-PR: sc-141136-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.