SANTA CRUZ BIOTECHNOLOGY, INC.

AP1GBP1 siRNA (h): sc-93752

BACKGROUND

Adaptins are heterotetrameric subunits of adaptors, which are complexes involved in the formation of Clathrin-coated pits for vesicle-mediated endocytosis. Clathrin and its associated heterotetrameric protein complexes make up the main protein components of the coat surrounding the cytoplasmic face of coated vesicles. AP1GBP1 (AP-1 subunit gamma-binding protein 1), also known as SYNRG (synergin, gamma), is a 1,314 amino acid peripheral membrane protein that links the γ subunit of the AP-1 clathrin-adaptor complex to various proteins. Existing as three alternatively spliced isoforms and localizing to both cytoplasm and the Golgi apparatus, AP1GBP1 may be involved in endocytosis and membrane trafficking. AP1GBP1 is encoded by a gene that maps to human chromosome 17 and contains one EH-domain that is used to facilitate interactions with SCAMP1.

REFERENCES

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4. Mills, I.G., et al. 2003. EpsinR: an AP1/clathrin interacting protein involved in vesicle trafficking. J. Cell Biol. 160: 213-222.
5. Theos, A.C., et al. 2005. Functions of adaptor protein (AP)-3 and AP-1 in tyrosinase sorting from endosomes to melanosomes. Mol. Biol. Cell 16: 5356-5372.
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CHROMOSOMAL LOCATION

Genetic locus: SYNRG (human) mapping to 17q12.

PRODUCT

AP1GBP1 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see AP1GBP1 shRNA Plasmid (h): sc-93752-SH and AP1GBP1 shRNA (h) Lentiviral Particles: sc-93752-V as alternate gene silencing products.

For independent verification of AP1GBP1 (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-93752A, sc-93752B and sc-93752C.

RESEARCH USE

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

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

AP1GBP1 siRNA (h) is recommended for the inhibition of AP1GBP1 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor AP1GBP1 gene expression knockdown using RT-PCR Primer: AP1GBP1 (h)-PR: sc-93752-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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