

ZFYVE16 siRNA (m): sc-155603

BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. ZFYVE16 (zinc finger FYVE domain-containing protein 16), also known as endofin or endosome-associated FYVE domain protein, is a 1539 amino acid protein containing one FYVE-type zinc finger domain. This domain, which has been shown to be necessary for the localization of ZFYVE16 to the early endosomes, mediates the association of ZFYVE16 with phosphatidylinositol 3-phosphate (PI3P). As a membrane-associated protein, ZFYVE16 also interacts with Smad4 and TOM1 to regulate membrane trafficking in the endosomal pathway. Three named isoforms of ZFYVE16 exist as a result of alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Zfyve16 (mouse) mapping to 13 C3.

RESEARCH USE

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

PRODUCT

ZFYVE16 siRNA (m) is a target-specific 19-25 nt siRNA 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 ZFYVE16 shRNA Plasmid (m): sc-155603-SH and ZFYVE16 shRNA (m) Lentiviral Particles: sc-155603-V as alternate gene silencing products.

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

ZFYVE16 siRNA (m) is recommended for the inhibition of ZFYVE16 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 ZFYVE16 gene expression knockdown using RT-PCR Primer: ZFYVE16 (m)-PR: sc-155603-PR (20 μ l). 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.