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YIF1A siRNA (m): sc-155402

BACKGROUND

YIF1A is a 293 amino acid gene product that belongs to the YIF1 family. YIF1A is an endoplasmic reticulum and Golgi body localized five pass membrane protein that interacts with YIPF5. It is believed that the interaction between YIPF5 and YIF1A is required for maintenance of Golgi body structure. Further, the location and structure of YIF1A seem to indicate it is likely involved in transport between the Golgi body and the endoplasmic reticulum. YIF1A maps to chromosome 11 which has been shown to overexpress some gene products in squamous cell carcinoma cell lines. Chromosome 11 also houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that maps to chromosome 11.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Yif1a (mouse) mapping to 19 A.

PROTOCOLS

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

PRODUCT

YIF1A 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see YIF1A shRNA Plasmid (m): sc-155402-SH and YIF1A shRNA (m) Lentiviral Particles: sc-155402-V as alternate gene silencing products.

For independent verification of YIF1A (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-155402A, sc-155402B and sc-155402C.

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

YIF1A siRNA (m) is recommended for the inhibition of YIF1A 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 YIF1A gene expression knockdown using RT-PCR Primer: YIF1A (m)-PR: sc-155402-PR (20 μ l). 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.