

p87PIKAP siRNA (m): sc-151974

BACKGROUND

p87PIKAP (p87 PI3K adapter protein), also known as PIK3R6 (phosphoinositide-3-kinase, regulatory subunit 6), p84 or HsT41028, is a 754 amino acid cytoplasmic protein that functions as a regulatory subunit of the PI 3-kinase p110 γ complex. Expressed in heart, dendritic cells, macrophages and neutrophils, p87PIKAP drives PI 3-kinase p110 γ activation, interacts with PDE3B and is thought to cause the two proteins to form a scaffolding interaction. The gene encoding p87PIKAP maps to human chromosome 17p13.1, which comprises over 2.5% of the human genome and encodes over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1. Tumor suppressor p53 is necessary for maintenance of cellular genetic integrity by moderating cell fate through DNA repair versus cell death. Like p53, BRCA1 is directly involved in DNA repair, though specifically it is recognized as a genetic determinant of early onset breast cancer and predisposition to cancers of the ovary, colon, prostate gland and fallopian tubes.

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CHROMOSOMAL LOCATION

Genetic locus: Pik3r6 (mouse) mapping to 11 B3.

PRODUCT

p87PIKAP 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 p87PIKAP shRNA Plasmid (m): sc-151974-SH and p87PIKAP shRNA (m) Lentiviral Particles: sc-151974-V as alternate gene silencing products.

For independent verification of p87PIKAP (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-151974A, sc-151974B and sc-151974C.

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

p87PIKAP siRNA (m) is recommended for the inhibition of p87PIKAP 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 p87PIKAP gene expression knockdown using RT-PCR Primer: p87PIKAP (m)-PR: sc-151974-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.