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PHLDB1 siRNA (m): sc-152227

BACKGROUND

PHLDB1 (Pleckstrin homology-like domain family B member 1), also known as LL5- α , is a 1,377 amino acid protein that contains a spectrin repeat and C-terminal pleckstrin homology (PH) domain. Like its homologue PHLDB2, PHLDB1 interacts with several phosphoinositides through its PH domain, with highest affinity for phosphatidylinositol 3,4,5-trisphosphate (PI(3,4,5)P₃), PI(3,4)P₂ and PI(3,5)P₂. It is suggested that PHLDB1 acts as an Insulin responsive protein that enhances Akt activation. PHLDB1 may be associated with certain rare cancers such as glioma, a cancer of the brain that begins in glial cells. PHLDB1 exists as three alternatively spliced isoforms whose expression is increased during adipocyte differentiation. PHLDB1 is encoded by a gene located on human chromosome 11q23.3, which houses over 1,400 genes and comprises nearly 4% of the human genome.

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CHROMOSOMAL LOCATION

Genetic locus: Phldb1 (mouse) mapping to 9 A5.2.

RESEARCH USE

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

PROTOCOLS

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

PRODUCT

PHLDB1 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 PHLDB1 shRNA Plasmid (m): sc-152227-SH and PHLDB1 shRNA (m) Lentiviral Particles: sc-152227-V as alternate gene silencing products.

For independent verification of PHLDB1 (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-152227A, sc-152227B and sc-152227C.

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

PHLDB1 siRNA (m) is recommended for the inhibition of PHLDB1 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 PHLDB1 gene expression knockdown using RT-PCR Primer: PHLDB1 (m)-PR: sc-152227-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.