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PLEKHQ1 siRNA (m): sc-152324

BACKGROUND

PLEKHQ1 (pleckstrin homology domain containing, family Q member 1), also known as PLEKHQ2 (pleckstrin homology domain containing, family Q member 2), PP1628 or pp9099, is a 490 amino acid protein that is believed to contain at least one pleckstrin homology (PH) domain. PH domains are responsible for mediating protein-protein and protein-lipid interactions. In humans, the gene encoding PLEKHQ1 is found on chromosome 15 and is known to be one of many circulat-responsive genes. Circulat is a plant extract formulation that was derived to prevent the severe onset of type 2 diabetes. Chromosome 15 makes up approximately 3% of the human genome and contains 106 million base pairs encoding more than 700 genes. Angelman and Prader-Willi syndromes are associated with loss of function or deletion of genes on chromosome 15q. Tay-Sachs disease and Marfan syndrome are also associated with chromosome 15.

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CHROMOSOMAL LOCATION

Genetic locus: Plekho2 (mouse) mapping to 9 C.

PRODUCT

PLEKHQ1 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 PLEKHQ1 shRNA Plasmid (m): sc-152324-SH and PLEKHQ1 shRNA (m) Lentiviral Particles: sc-152324-V as alternate gene silencing products.

For independent verification of PLEKHQ1 (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-152324A, sc-152324B and sc-152324C.

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

PLEKHQ1 siRNA (m) is recommended for the inhibition of PLEKHQ1 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 PLEKHQ1 gene expression knockdown using RT-PCR Primer: PLEKHQ1 (m)-PR: sc-152324-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.