

PLEKHN1 siRNA (m): sc-152323

BACKGROUND

PLEKHN1 (pleckstrin homology domain containing, family N member 1) is a 663 amino acid phosphoprotein that contains two pleckstrin homology (PH) domains. Conserved in canine, bovine, mouse and rat, PLEKHN1 exists as three alternatively spliced isoforms and is encoded by a gene that maps to human chromosome 1p36.33. As the largest human chromosome, chromosome 1 makes up approximately 8% of the human genome and contains 260 million base pairs encoding 3,000 genes. Numerous diseases are linked to chromosome 1, such as the rare aging disease Hutchinson-Gilford progeria, familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease and Usher syndrome. Aberrations in chromosome 1 also exist in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Plekhn1 (mouse) mapping to 4 E2.

PRODUCT

PLEKHN1 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 PLEKHN1 shRNA Plasmid (m): sc-152323-SH and PLEKHN1 shRNA (m) Lentiviral Particles: sc-152323-V as alternate gene silencing products.

For independent verification of PLEKHN1 (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-152323A, sc-152323B and sc-152323C.

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

PLEKHN1 siRNA (m) is recommended for the inhibition of PLEKHN1 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 PLEKHN1 gene expression knockdown using RT-PCR Primer: PLEKHN1 (m)-PR: sc-152323-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.

PROTOCOLS

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