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PRELP siRNA (m): sc-152459

BACKGROUND

PRELP (proline/arginine-rich end leucine-rich repeat protein), also known as Prolargin, MST161, SLRR2A or MSTP161, is a 382 amino acid secreted protein that localizes to the extracellular matrix. Belonging to the class II subfamily of the small leucine-rich proteoglycan (SLRP) family, PRELP contains twelve LRR (leucine-rich repeats), which are motifs consisting of 20-29 residues that are present in numerous proteins with diverse functions and provide versatile structural framework for the formation of protein-protein interactions. Highly expressed in cartilage, basement membranes and developing bone, PRELP is considered a glycosaminoglycan (GAG)- and collagen-binding anchor protein that associates with the basement membrane heparan sulfate proteoglycan perlecan. PRELP acts as a linker between the extracellular matrix and the cell surface of proteoglycans and may be partially responsible for Hutchinson-Gilford progeria (HGP), an extremely rare genetic disorder that causes premature, rapid aging shortly after birth.

REFERENCES

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PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: Prelep (mouse) mapping to 1 E4.

PRODUCT

PRELP 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 PRELP shRNA Plasmid (m): sc-152459-SH and PRELP shRNA (m) Lentiviral Particles: sc-152459-V as alternate gene silencing products.

For independent verification of PRELP (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-152459A, sc-152459B and sc-152459C.

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

PRELP siRNA (m) is recommended for the inhibition of PRELP 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 PRELP gene expression knockdown using RT-PCR Primer: PRELP (m)-PR: sc-152459-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.