SANTA CRUZ BIOTECHNOLOGY, INC.

WARP siRNA (h): sc-78614

BACKGROUND

Von Willebrand disease is a congenital bleeding disorder caused by defects in the von Willebrand factor protein (VWF). VWF is a multimeric glycoprotein that is found in endothelial cells, plasma and platelets, and is involved in the coagulation of blood at injury sites. VWF acts as a carrier protein for Factor VIII, a cofactor required for coagulation, and it promotes platelet adhesion and aggregation. Large multimers of VWF are more biologically active, and bind platelets and the subendothelial matrix more efficiently. The accumulation of large VWF multimers in circulation can lead to platelet aggregation and cause life-threatening disorders. WARP (von Willebrand factor A domain-related protein), also designated VWA1 (von Willebrand factor A domain containing 1), is a 445 amino acid secreted protein expressed in chondrocytes that consists of two fibronectin type-III domains and one VWFA domain. Belonging to the von Willebrand factor A (VA) domain superfamily of extracellular matrix proteins, WARP may participate in cartilage structure and function. WARP may exist as a homodimer or homomultimer and may be expressed as two alternatively spliced variants.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: VWA1 (human) mapping to 1p36.33.

PRODUCT

WARP siRNA (h) is a pool of 2 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see WARP shRNA Plasmid (h): sc-78614-SH and WARP shRNA (h) Lentiviral Particles: sc-78614-V as alternate gene silencing products.

For independent verification of WARP (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-78614A and sc-78614B.

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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

WARP siRNA (h) is recommended for the inhibition of WARP expression in human 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 µM in 66 µl. 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 WARP gene expression knockdown using RT-PCR Primer: WARP (h)-PR: sc-78614-PR (20 µl). 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.