



VG5Q siRNA (h): sc-61780

BACKGROUND

Angiogenic factors are critical to the initiation of angiogenesis and maintenance of the vascular network. The angiogenic factor vasculogenesis gene on 5q (VG5Q, formally named AGGF1) binds to endothelial cells and promotes cell proliferation and angiogenesis. Suppression of VG5Q inhibits vessel formation. VG5Q may also play a role in the autocrine system. It is a secreted cytoplasmic protein that interacts with TWEAK (also designated TNFSF12), an angiogenic factor. VG5Q is widely expressed, but highest levels are detected in various types of endothelial cells, osteoblasts and in smooth muscle cells. Mutations in the VG5Q gene result in the vascular disease Klippel-Trenaunay syndrome (KTS), which results in asymmetric overgrowth.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: AGGF1 (human) mapping to 5q13.3.

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

VG5Q siRNA (h) is a target-specific 19-25 nt siRNA 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 VG5Q shRNA Plasmid (h): sc-61780-SH and VG5Q shRNA (h) Lentiviral Particles: sc-61780-V as alternate gene silencing products.

For independent verification of VG5Q (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-61780A, sc-61780B and sc-61780C.

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

VG5Q siRNA (h) is recommended for the inhibition of VG5Q 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 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 VG5Q gene expression knockdown using RT-PCR Primer: VG5Q (h)-PR: sc-61780-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.