



# VEGI siRNA (h): sc-39846

## BACKGROUND

Vascular endothelial cell growth inhibitor (VEGI), also known as TNFRSF15 or TL1, is a member of the TNF superfamily. VEGI has a signaling pathway similar to TNF and is most likely a multifunctional cytokine. VEGI is found in brain, reproductive and late developmental stage embryonic tissues and is expressed predominantly in endothelial cells. It is an angiogenesis inhibitor of the TNF family and functions in part by directly inhibiting endothelial cell proliferation. VEGI may act as an autocrine factor to induce apoptosis in endothelial cells via activation of multiple signaling pathways, including stress protein kinases and certain caspases.

## REFERENCES

1. Tan, K.B., et al. 1997. Characterization of a novel TNF-like ligand and recently described TNF ligand and TNF receptor superfamily genes and their constitutive and inducible expression in hematopoietic and non-hematopoietic cells. *Gene* 204: 35-46.
2. Haridas, V., et al. 1999. VEGI, a new member of the TNF family activates nuclear factor- $\kappa$  B and c-Jun N-terminal kinase and modulates cell growth. *Oncogene* 18: 6496-6504.
3. Hu, S., et al. 1999. Characterization of TNFRSF19, a novel member of the tumor necrosis factor receptor superfamily. *Genomics* 62: 103-107.
4. Zhai, Y., et al. 1999. Inhibition of angiogenesis and breast cancer xenograft tumor growth by VEGI, a novel cytokine of the TNF superfamily. *Int. J. Cancer* 82: 131-136.

## CHROMOSOMAL LOCATION

Genetic locus: TNFSF15 (human) mapping to 9q32.

## PRODUCT

VEGI siRNA (h) 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see VEGI shRNA Plasmid (h): sc-39846-SH and VEGI shRNA (h) Lentiviral Particles: sc-39846-V as alternate gene silencing products.

For independent verification of VEGI (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-39846A, sc-39846B and sc-39846C.

## 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  $\mu$ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNase-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

VEGI siRNA (h) is recommended for the inhibition of VEGI 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  $\mu$ M in 66  $\mu$ 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.

## GENE EXPRESSION MONITORING

VEGI (1A3): sc-53975 is recommended as a control antibody for monitoring of VEGI gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor VEGI gene expression knockdown using RT-PCR Primer: VEGI (h)-PR: sc-39846-PR (20  $\mu$ l, 550 bp). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## SELECT PRODUCT CITATIONS

1. Zhang, D., et al. 2022. TL1A/DR3 axis, a key target of TNF- $\alpha$ , augments the epithelial-mesenchymal transformation of epithelial cells in OVA-induced asthma. *Front. Immunol.* 13: 854995.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.