SANTA CRUZ BIOTECHNOLOGY, INC.

EDIL3 siRNA (h): sc-91971

BACKGROUND

EDIL3 (EGF-like repeats and discoidin I-like domains 3), also known as developmentally-regulated endothelial cell locus 1 protein or Integrin-binding protein DEL1, is a 480 amino acid secreted glycoprotein that may act as an angiogenic factor during solid tumor formation. Expressed in embryonic endo-thelial cells, EDIL3 acts a ligand of Integrin $\alpha_V\beta_3$ to promote endothelial cell adhesion via an autocrine angiogenic signaling pathway. EDIL3 is also known to participate in vascular morphogenesis during embryonic development and is important for vessel wall remodeling. Containing three EGF-like domains and two F5/8 type C domains, EDIL3 exists as two alternatively spliced isoforms that are encoded by a gene mapping to human chromosome 5q14.3.

REFERENCES

1. Hidai, C., et al. 1998. Cloning and characterization of developmental endothelial locus-1: an embryonic endothelial cell protein that binds the $\alpha_V\beta_3$ integrin receptor. Genes Dev. 12: 21-33.
2. Penta, K., et al. 1999. Del1 induces integrin signaling and angiogenesis by ligation of $\alpha_V\beta_3$. J. Biol. Chem. 274: 11101-11109.
3. Pfister, B.E., et al. 2001. Del1: a new protein in the superficial layer of articular cartilage. Biochem. Biophys. Res. Commun. 286: 268-273.
4. Rezaee, M., et al. 2002. Del1 mediates VSMC adhesion, migration, and proliferation through interaction with Integrin $\alpha_V\beta_3$. Am. J. Physiol. Heart Circ. Physiol. 282: H1924-H1932.
5. Aoka, Y., et al. 2002. The embryonic angiogenic factor Del1 accelerates tumor growth by enhancing vascular formation. Microvasc. Res. 64: 148-161.
6. Zhong, J., et al. 2003. Neovascularization of ischemic tissues by gene delivery of the extracellular matrix protein Del-1. J. Clin. Invest. 112: 30-41.
7. Choi, E.Y., et al. 2008. Del-1, an endogenous leukocyte-endothelial adhesion inhibitor, limits inflammatory cell recruitment. Science 322: 1101-1104.

CHROMOSOMAL LOCATION

Genetic locus: EDIL3 (human) mapping to 5q14.3.

PRODUCT

EDIL3 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see EDIL3 shRNA Plasmid (h): sc-91971-SH and EDIL3 shRNA (h) Lentiviral Particles: sc-91971-V as alternate gene silencing products.

For independent verification of EDIL3 (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-91971A, sc-91971B and sc-91971C.

PROTOCOLS

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

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

EDIL3 siRNA (h) is recommended for the inhibition of EDIL3 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.

GENE EXPRESSION MONITORING

EDIL3 (4C9): sc-293337 is recommended as a control antibody for monitoring of EDIL3 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-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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 EDIL3 gene expression knockdown using RT-PCR Primer: EDIL3 (h)-PR: sc-91971-PR (20 µl, 600 bp). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

SELECT PRODUCT CITATIONS

1. Tabasum, S., et al. 2023. EDIL3 as an angiogenic target of immune exclusion following checkpoint blockade. Cancer Immunol. Res. 11: 1493-1507.

RESEARCH USE

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