SANTA CRUZ BIOTECHNOLOGY, INC.

EVL siRNA (h): sc-62286

BACKGROUND

EVL (Ena/VASP-like protein) is an Actin-binding protein that belongs to the Mena/VASP protein family. EVL is expressed in filopodial tips and localizes to the edge of the lamellipodia and focal adhesions. In epithelial cells, EVL localizes to the membrane of the lateral domain. EVL contains an N-terminal EVH1 domain, a proline-rich core and a C-terminal EVH2 domain. Via its proline-rich domain, EVL interacts with the SH3 domain of spectrin α II and the LIM domain of TES. EVL is closely related to VASP (vasodilator-stimulated phosphoprotein) and Mena (for mammalian enabled protein). Mena is highly expressed in the developing nervous system and may be involved in growth cone motility and axon guidance; VASP is involved in the maintenance of cyto-architecture by interacting with Actin-like filaments. All three proteins, EVL, Mena and VASP, are involved in cell motility and the regulation of cytoskeletal organization and dynamics.

REFERENCES

1. Laurent, V., et al. 1999. Role of proteins of the Ena/VASP family in Actin-based motility of *Listeria monocytogenes*. J. Cell Biol. 144: 1245-1258.
2. Lambrechts, A., et al. 2000. cAMP-dependent protein kinase phosphorylation of EVL, a Mena/VASP relative, regulates its interaction with Actin and SH3 domains. J. Biol. Chem. 275: 36143-36151.
3. Klostermann, A., et al. 2000. The orthologous human and murine semaphorin 6A-1 proteins (SEMA6A-1/Sema6A-1) bind to the enabled/vasodilator-stimulated phosphoprotein-like protein (EVL) via a novel carboxyl-terminal zyxin-like domain. J. Biol. Chem. 275: 39647-39653.
4. Rotter, B., et al. 2005. αII-spectrin interacts with Tes and EVL, two Actin-binding proteins located at cell contacts. Biochem. J. 388: 631-638.
5. Wanner, S.J., et al. 2005. Molecular cloning and expression of Ena/Vasp-like (EVL) during *Xenopus* development. Gene Expr. Patterns 5: 423-428.
6. Bournier, O., et al. 2006. Spectrin interacts with EVL (enabled/vasodilator-stimulated phosphoprotein-like protein), a protein involved in Actin polymerization. Biol. Cell 98: 279-293.
7. Sjöblom, T., et al. 2006. The consensus coding sequences of human breast and colorectal cancers. Science 314: 268-274.

CHROMOSOMAL LOCATION

Genetic locus: EVL (human) mapping to 14q32.2.

PRODUCT

EVL 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 EVL shRNA Plasmid (h): sc-62286-SH and EVL shRNA (h) Lentiviral Particles: sc-62286-V as alternate gene silencing products.

For independent verification of EVL (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-62286A, sc-62286B and sc-62286C.

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

EVL siRNA (h) is recommended for the inhibition of EVL 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

EVL (C-12): sc-373793 is recommended as a control antibody for monitoring of EVL 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 EVL gene expression knockdown using RT-PCR Primer: EVL (h)-PR: sc-62286-PR (20 µl, 578 bp). 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.