

EVL (G-2): sc-365751

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

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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. α II 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.
8. Woronowicz, K., et al. 2007. Miniature protein ligands for EVH1 domains: interplay between affinity, specificity, and cell motility. *Biochemistry* 46: 13541-13553.

CHROMOSOMAL LOCATION

Genetic locus: EVL (human) mapping to 14q32.2; Evl (mouse) mapping to 12 F1.

SOURCE

EVL (G-2) is a mouse monoclonal antibody raised against amino acids 1-50 of EVL of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

EVL (G-2) is recommended for detection of EVL of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for EVL siRNA (h): sc-62286, EVL siRNA (m): sc-62287, EVL shRNA Plasmid (h): sc-62286-SH, EVL shRNA Plasmid (m): sc-62287-SH, EVL shRNA (h) Lentiviral Particles: sc-62286-V and EVL shRNA (m) Lentiviral Particles: sc-62287-V.

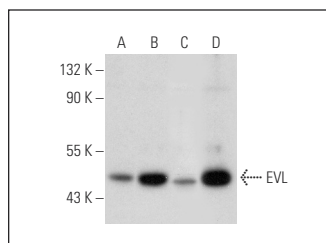
Molecular Weight of EVL: 56 kDa.

Positive Controls: CCRF-CEM cell lysate: sc-2225, Jurkat whole cell lysate: sc-2204 or Ramos cell lysate: sc-2216.

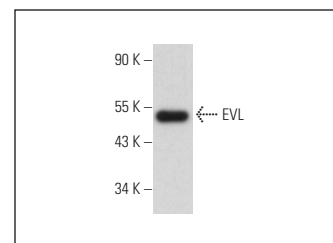
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



EVL (G-2): sc-365751. Western blot analysis of EVL expression in CCRF-CEM (A), Jurkat (B), MOLT-4 (C) and Ramos (D) whole cell lysates.



EVL (G-2): sc-365751. Western blot analysis of EVL expression in IB4 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Yang, Y., et al. 2021. Functional cooperation between co-amplified genes promotes aggressive phenotypes of HER2-positive breast cancer. *Cell Rep.* 34: 108822.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

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