

Product Information

Anti-VASP (C-terminal)

produced in rabbit, affinity isolated antibody

Product Number **V3390**

Product Description

Anti-VASP (C-terminal) is produced in rabbit using as the immunogen a synthetic peptide corresponding to a sequence at the C-terminal of human VASP (Gene ID: 7408) conjugated to KLH. The corresponding sequence is highly conserved (single amino acid substitution) in mouse and rat VASP. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-VASP (C-terminal) specifically recognizes human, dog, and rat VASP. The antibody may be used in various immunochemical techniques including immunoblotting (~46 kDa) and immunofluorescence. Staining of the VASP band by immunoblotting is specifically inhibited by the VASP immunizing peptide.

VASP (vasodilator-stimulated phosphoprotein) belongs to the family of Ena/VASP actin-regulatory proteins that are implicated in cell motility and adhesion.¹⁻³ VASP is localized at highly dynamic membrane regions, focal adhesion sites, lamellipodia protrusions, filopodia tips, and along stress fibers. VASP is also localized at cell-matrix and cell-cell contacts, and plays an important role in adherens junction formation and stabilization in epithelial cells.

VASP is a substrate for cAMP- and cGMP-dependent protein kinases. It is phosphorylated at multiple sites including Ser¹⁵⁷, Ser²³⁹, and Thr²⁷⁸.⁴ cGMP-dependent protein kinase I (cGKI) phosphorylates VASP in a variety of cells, including platelets, fibroblasts, and endothelial cells. In platelets, cGMP-mediated phosphorylation of VASP correlates with inhibition of agonist-induced platelet aggregation.⁵

Ena/VASP proteins are required for neurite initiation and extension in the developing cortex.⁶ VASP has been shown to be required for endothelial barrier function *in vivo*. Knockout of Ena/VASP proteins in mice leads to increased endothelial permeability causing fatal vascular leakage and hemorrhaging during late embryonic development.⁷ In contrast, over expression of VASP enhances barrier function of endothelial cells *in vitro* and increases their force generation.

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody concentration: ~1.5 mg/mL

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store at -20 °C. For continuous use, the product may be stored at 2-8 °C for up to one month. For extended storage, freeze in working aliquots at -20 °C. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working antibody concentration of 0.5-1 µg/mL is recommended using K562, Rat2, and MDCK cell lysates.

Immunofluorescence: a working concentration of 5-10 µg/mL is recommended using MDCK cells.

Note: In order to obtain best results in various techniques and preparations, it is recommended to determine optimal working dilutions by titration.

References

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VS,ER,TD,KAA,PHC,MAM 04/19-1