3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

Product Information

Anti-VASP
produced in rabbit, affinity isolated antibody

Product Number **V3515**

Product Description

Anti-VASP is produced in rabbit using as the immunogen a synthetic peptide corresponding to a fragment of human VASP (GeneID: 7408) conjugated to KLH. The corresponding sequence has 77% identity in mouse and rat VASP. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-VASP specifically recognizes human and dog 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 Ser^{157}, Ser^{239}, and Thr^{278}.[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.

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 and MDCK cell lysates.

Immunofluorescence: a working antibody concentration of 0.5-1.0 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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