Background information
VASP (vasodilator stimulated phosphoprotein) is a proline-rich protein substrate of cAMP- and cGMP-dependent protein kinases. Phosphorylation of VASP at Ser-157 causes a mobility shift in SDS gel electrophoresis from 46 to 50 kDa, which has been used as a convenient marker to monitor cyclic nucleotide-dependent protein kinase activity. VASP is the founding member of the Ena-VASP protein family, comprising the Drosophila protein Enabled (Ena), its mouse homologue Mena (mammalian Enabled), and mouse EVL (Ena-VASP-like protein). With these proteins VASP shares a conserved overall domain organization: a) the conserved N-terminal Ena-VASP homology domain (EVH1), which mediates binding to a defined proline-rich motif, b) a more divergent proline-rich central domain (which is responsible for profilin, SH3, and WW domain binding), and c) a conserved C-terminal EVH2 oligomerization domain. VASP is expressed in a variety of mammalian cell types and tissues. Functional evidence indicates that VASP is a crucial factor involved in the regulation of actin filament dynamics and actin-dependent motility of cells and intracellular bacterial pathogens (for a review see Refs. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10).

Antibody preparation and storage
25 µg (100 µl) of purified antibody in PBS, with 1 mg/ml BSA, with 0.02% NaN₃. Antibody concentration: 250 µg/ml. Solutions have been overfilled by 10% to ensure complete recovery of the specified amount. Stable for one year from date of shipment when stored at -20°C.

Antigen
The antibody was raised against human His₆-VASP and has been affinity purified on the antigen.

Species cross-reactivity
Human, mouse, porcine

Specificity
The antibody recognizes both the 46 kDa (Ser-157 dephospho) and 50 kDa (Ser-157 phospho) form of VASP.

Applications
Western (immuno) blotting (0.1 µg/ml; dilution 1:2500), immunofluorescence of formaldehyde fixed cells (1 µg/ml; dilution 1:250), immunoprecipitation (2 µg/ml; dilution 1:125). All dilutions refer to the analysis of cells and tissues with intermediate to high levels of human VASP expression and must be viewed as approximate. The antibody should be titrated for each individual application.

Positive control
Human platelet protein (500 µg), supplied at 5 mg/ml in SDS sample buffer. Use 5 µl (25 µg) per lane.

Related products
- monoclonal antibody IE273 to human VASP, 50 µg (catalog # 0016-05)
- positive control: human platelet protein in SDS sample buffer, 500 µg (catalog # 8010-50)

References

[40] Reinhard et al. (1992) The 46/50 kDa phosphoprotein VASP purified from human platelets is a novel protein associated with actin filaments and focal contacts. EMBO J. 11:2063-2070.