

VASP (Thr-278), phospho-specific

Cat. # VP2781

Host Rabbit Polyclonal

Size 100 µl

Background:

Actin filament tethering and bundling are important mechanisms involved in actin superstructure assembly. The ENA/VASP family includes VASP, mena, and Ena-Vasp-like (EVL). These multidomain proteins localize to the leading edge of filopodia where they associate with AFs, interact with profilin, and compete with capping proteins at the barbed end of AFs. Artificial relocation of VASP from the plasma membrane to mitochondrial membranes inhibits filopodial formation and axon branching, while deletion of all three ENA/VASP proteins produces defects in cortical axon-tract formation. Regulation of VASP protein activity occurs through phosphorylation at Ser-157, Ser-239, and Thr-278. AMPK phosphorylates Thr-278, leading to impaired actin stress fiber assembly and changes in cell morphology.

References

- Krause, M. et al. (2003) Annu Rev Cell Dev Biol. 19: 541.
Blume, C. et al. (2007) J Biol Chem. 282(7):4601.
Applewhite, D.A. et al. (2007). Mol Biol Cell. 18(7):2579.

Immunogen:

Phospho-VASP (Thr-278) synthetic peptide (coupled to carrier protein) corresponding to amino acids surrounding threonine 278 in human VASP. This sequence has significant homology to the conserved site in rat and mouse VASP, but is not conserved in mena or EVL proteins.

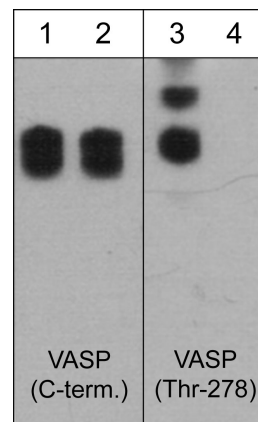
Applications:

WB 1:1000
ELISA 1:2000

End user should determine optimal dilution for their particular applications and experiments. Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

Related Products:

VM2771 VASP (C-terminal region) Mouse Monoclonal
FP2661 Fascin (Ser-39), phospho-specific Rabbit Polyclonal
FM2651 Fascin (clone 55K2) Mouse Monoclonal
AP1671 Actin (Tyr-53), phospho-specific Rabbit Polyclonal
AM2021 Actin (C-terminal region) Mouse Monoclonal
AP1651 Actin (N-terminal Region) Rabbit Polyclonal



Western blot image of human A431 cells stimulated with calyculin A (100 nM) for 30 min. The blots were untreated (lanes 1 & 3) or treated with lambda phosphatase (lanes 2 & 4), then probed with mouse monoclonal VASP (C-term.) antibody (lanes 1 & 2) or rabbit polyclonal VASP (Thr-278) phospho-specific antibody (lanes 3 & 4).

Buffer and Storage:

Rabbit polyclonal, affinity-purified antibody is supplied in 100 µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Do not aliquot. Stable for 1 year.

Specificity:

This antibody was affinity purified using phospho-VASP (Thr-278) peptide. The purified antibody detects a 50 kDa* band corresponding to VASP in Western blots of human A431 and HeLa cells, as well as mouse C2C12 cells that have been treated with calyculin A.

*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

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