VASP (C-terminal region)

Mouse Monoclonal

Cat. # VM2771
Size 100 µl

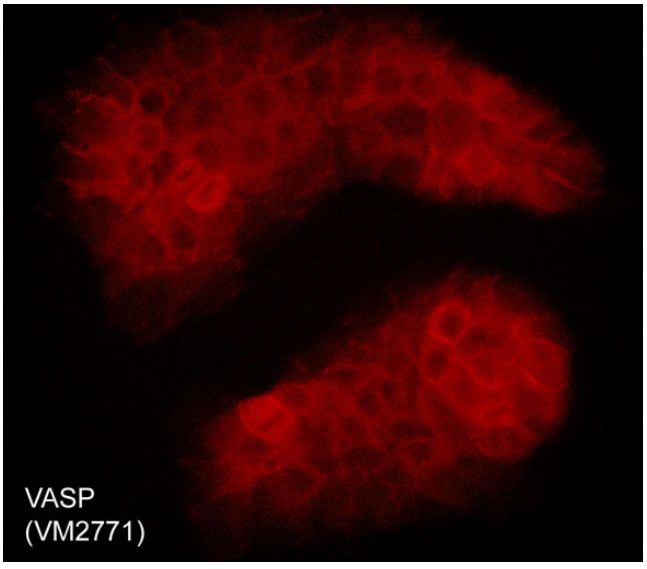
Background

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 relocalization 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.

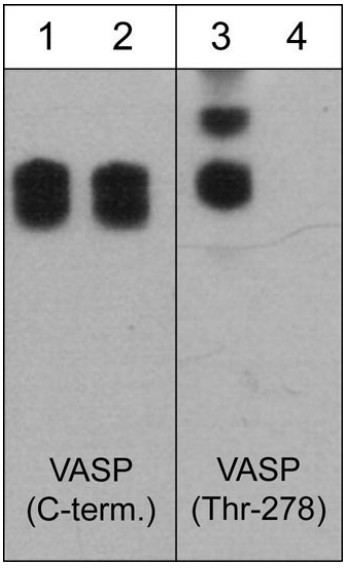
GO mAb
Guaranteed to Outperform

Background References

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



Immunocytochemical labeling of VASP in aldehyde-fixed and NP-40-permeabilized A431 cells. The cells were labeled with mouse monoclonal VASP (C-terminal region) antibody, then the antibody was detected using appropriate secondary antibody conjugated to DyLight® 594.



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).

www.ecmbio.com
info@ecmbio.com
toll-free: 1-800-859-8202
telephone: 859-879-2075

Rev 7/16/2020

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Immunogen

Uniprot ID: P50552

Clone (M277) was generated from a recombinant protein that includes amino acids from the C-terminal region of human VASP.

Product Citations

Hocking, KM et al. (2016) PLoS One. 11(5):e0154460.
WB: human muscle

Buffer and Storage

Mouse monoclonal antibody purified with protein A chromatography is supplied in 100µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at –20°C. Stable for 1 year.

Applications

WB	1:1000
ELISA	1:2000
ICC	1:50

Species Reactivity

Hu

Isotype: IgG1

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, Tris buffer, 0.04% Tween20 for 1 hour at room temperature.
Abbreviations: E = ELISA, ICC = immunocytochemistry, IHC = immunohistochemistry, IP = immunoprecipitation, MS = mass spectrometry, WB = western blot
Hu = Human, Ms = Mouse, Rt = Rat, Ck = Chicken, F = Frog, B = Bovine

Specificity

This antibody detects 46 and 50 kDa* proteins corresponding to the apparent molecular mass of VASP on SDS-PAGE immunoblots of human A431, HeLa, and HUVEC.

*All molecular weights (MW) are confirmed by comparison to MW standards and to western blot mobilities of known proteins with similar MW.
"Native" western blot utilizes non-reducing sample buffer (no mercaptoethanol or SDS), normal SDS-PAGE gel electrophoresis, and no methanol in transfer buffers.

Related Products

VP2781 VASP (Thr-278), phospho-specific Rabbit Polyclonal
FM2651 Fascin (clone 55K2) Mouse Monoclonal
FP2661 Fascin (Ser-39), phospho-specific Rabbit Polyclonal
AM2021 Actin (C-terminal region) Mouse Monoclonal
AP1651 Actin (N-terminal region) Rabbit Polyclonal
AP1671 Actin (Tyr-53), phospho-specific Rabbit Polyclonal

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