

Phospho-VASP (Ser157) Antibody

✓ 100 µl
(10 western blots)

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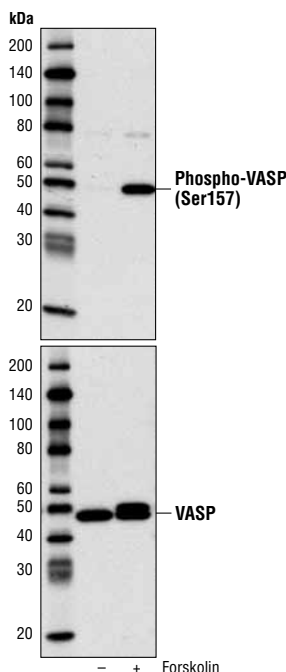
This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IHC-P Endogenous	H, M, R, Mk, Guinea Pig	50 kDa	Rabbit**

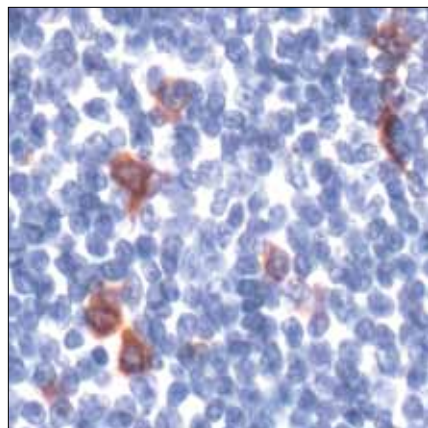
Background: Vasodilator-stimulated phosphoprotein (VASP) was originally characterized as a substrate of both cGMP- and cAMP-dependent kinases (PKG and PKA, or cGPK and cAPK, respectively) (1). It is now believed that VASP belongs to the Ena/VASP family of adaptor proteins linking the cytoskeletal system to the signal transduction pathways and that it functions in cytoskeletal organization, fibroblast migration, platelet activation and axon guidance (2,3). Three phosphorylation sites, Ser157, Ser239 and Thr278, have been identified. Ser239 is the major PKG phosphorylation site while Ser157 is the major PKA phosphorylation site (4). Evidence suggests that VASP phosphorylation reduces its association with actin and has a negative effect on actin polymerization (5). Phosphorylation at Ser239 of VASP is a useful marker for monitoring PKG activation and signaling (6,7).

Specificity/Sensitivity: Phospho-VASP (Ser157) Antibody detects endogenous levels of VASP only when phosphorylated at Ser157. The antibody may cross-react with the phosphorylated VASP homologue Mena.

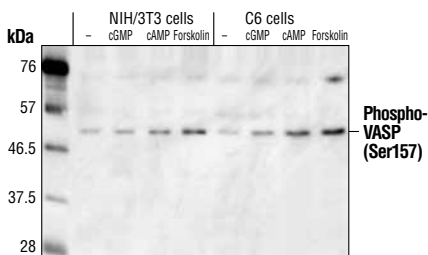
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phospho-peptide (KLH-coupled) corresponding to residues surrounding Ser157 of human VASP. Antibodies are purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from A-431 cells, untreated (-) or treated with Forskolin #3828 (+), using Phospho-VASP (Ser157) Antibody (upper) and VASP (9A2) Rabbit mAb #3132 (lower).



Immunohistochemical analysis of paraffin-embedded human tonsil, showing cytoplasmic localization using Phospho-VASP (Ser157) Antibody.



Western blot analysis of extracts from NIH/3T3 and C6 cells, untreated, 8-Br-cGMP-treated, 8-Br-cAMP-treated or forskolin-treated as indicated using Phospho-VASP (Ser157) Antibody

Entrez-Gene ID #7408
Swiss-Prot Acc. #P50552

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western Blotting	1:1000
Immunohistochemistry (Paraffin)	1:50
Unmasking buffer:	Citrate
Antibody diluent:	TBST-5%NGS

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

Background References:

- (1) Butt, E. et al. (1994) *J. Biol. Chem.* 269, 14509–14517.
- (2) Ball, L.J. et al. (2000) *EMBO J.* 19, 4903–4914.
- (3) Machesky, L.M. et al. (2000) *Cell* 101, 685–688.
- (4) Smolenski, A. et al. (1998) *J. Biol. Chem.* 273, 20029–20035.
- (5) Harbeck, B. et al. (2000) *J. Biol. Chem.* 275, 30817–30825.
- (6) Oelze, M. et al. (2000) *Circ. Res.* 87, 999–1005.
- (7) Lawrence, D.W. et al. (2001) *J. Immunol.* 166, 5550–5556.

IMPORTANT: For Western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.