

#3132 Store at -20°C

VASP (9A2) Rabbit mAb



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rev. 08/08/16

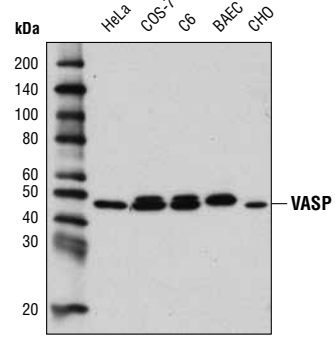
For Research Use Only. Not For Use In Diagnostic Procedures.

| Applications | Species Cross-Reactivity* | Molecular Wt. | Isotype |
|----------------------------|---------------------------|---------------|--------------|
| W, IP, IF-IC Endogenous | H, M, R, Mk, Hm, B | 46, 50 kDa | Rabbit IgG** |

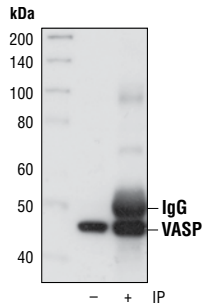
Background: Vasodilator-stimulated phosphoprotein (VASP) was originally characterized as a substrate of both cGMP- and cAMP-dependent kinases (PKG and PKA, or cGPK and cAPK, respectively) (1). It is now believed that VASP belongs to the Ena/VASP family of adaptor proteins linking the cytoskeletal system 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: VASP (9A2) Rabbit mAb detects endogenous levels of total VASP protein.

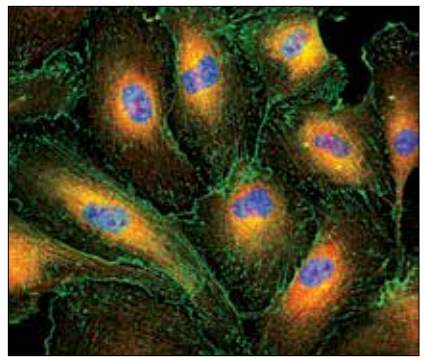
Source/Purification: Monoclonal antibody is produced by immunizing rabbits with a synthetic peptide corresponding to residues near the carboxy terminus of human and mouse VASP.



Western blot analysis of extracts from various cell lines using VASP (9A2) Rabbit mAb.



Immunoprecipitation of VASP from HeLa cell extracts using VASP Rabbit mAb. The same antibody was used for Western detection.



Confocal immunofluorescent analysis of HUVE cells using VASP (9A2) Rabbit mAb (green) and MEK1/2 (L38C12) Mouse mAb #4694 (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).

Entrez-Gene ID #7408
UniProt ID #P50552

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. 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 |
| Immunoprecipitation | 1:500 |
| Immunofluorescence (IF-IC) | 1:400 |

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:

- Butt, E. et al. (1994) *J. Biol. Chem.* 269, 14509–14517.
- Ball, L.J. et al. (2000) *EMBO J.* 19, 4903–4914.
- Machesky, L.M. et al. (2000) *Cell* 101, 685–688.
- Smolenski, A. et al. (1998) *J. Biol. Chem.* 273, 20029–20035.
- Harbeck, B. et al. (2000) *J. Biol. Chem.* 275, 30817–30825.
- Oelze, M. et al. (2000) *Circ. Res.* 87, 999–1005.
- 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.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.

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