

**Phospho-VASP (Ser239) Antibody**

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R Mk	Endogenous	48, 50	Rabbit	#P50552	7408

**Product Usage Information****Application**

Western Blotting

**Dilution**

1:1000

**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.

**Specificity/Sensitivity**

Phospho-VASP (Ser239) Antibody detects endogenous levels of VASP only when phosphorylated at serine 239. The antibody does not cross-react with phosphorylated VASP homologues, such as Mena.

**Source / Purification**

Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser239 of human VASP. Antibodies are purified by protein A and peptide affinity chromatography.

**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).

**Background References**

1. Butt, E. et al. (1994) *J Biol Chem* 269, 14509-17.
2. Ball, L.J. et al. (2000) *EMBO J* 19, 4903-14.
3. Machesky, L.M. (2000) *Cell* 101, 685-8.
4. Smolenski, A. et al. (1998) *J Biol Chem* 273, 20029-35.
5. Harbeck, B. et al. (2000) *J Biol Chem* 275, 30817-25.
6. Oelze, M. et al. (2000) *Circ Res* 87, 999-1005.
7. Lawrence, D.W. and Pryzwansky, K.B. (2001) *J Immunol* 166, 5550-6.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

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

**Applications Key**

**W:** Western Blotting

**Cross-Reactivity Key**

**H:** Human **M:** Mouse **R:** Rat **Mk:** Monkey

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