Revision 1

Store at -20C

#84519

# Phospho-VASP (Ser157) (D1C8O) Rabbit mAb

Cell Signaling TECHNOLOGY®

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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, IP | H M R | Endogenous | 50 | Rabbit IgG | #P50552 | 7408 |

## Product Usage Information

| Application | Dilution |
|---|---|
| Western Blotting | 1:1000 |
| Immunoprecipitation | 1:50 |

## 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.

## Specificity/Sensitivity

Phospho-VASP (Ser157) Rabbit mAb recognizes endogenous levels of VASP protein only when phosphorylated at Ser157.

## Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser157 of human VASP protein.

## 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 **IP:** Immunoprecipitation

## Cross-Reactivity Key

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

## Trademarks and Patents



## Limited Uses

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