Revision 1

Store at -20C

#14396

M-RIP (D8G8R) 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	130-140	Rabbit IgG	#Q6WCQ1	23164

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100

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

M-RIP (D8G8R) Rabbit mAb recognizes endogenous levels of total M-RIP protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro62 of human M-RIP protein.

Background

Myosin phosphatase-rho interacting protein (M-RIP), also known as p116RIP, RIP3, and MPRIP, localizes to actin-myosin filaments regulating cytoskeletal dynamics (1-3). M-RIP contains amino-terminal pleckstrin homology domains, carboxyl-terminal coiled-coil domains, and was originally identified to associate with the myosin phosphatase complex. M-RIP binds to MBS/MYRT, the myosin binding subunit of myosin phosphatase, as well as RhoA (1-3). Phosphorylation of MYRT by Rho-associated kinase (ROCK) inhibits myosin phosphatase activity, resulting in increased levels of phosphorylation on myosin light chain, and enhanced contractility (4,5). M-RIP may function as a scaffolding protein for the complex between the myosin phosphatase complex, Rho/ROCK, and actin (2,6). Silencing of M-RIP results in disassembly of the complex, increased phosphorylation of myosin light chain, and changes to cytoskeletal dynamics (7,8).

Background References

1. Surks, H.K. et al. (2003) *J Biol Chem* 278, 51484-93.
2. Mulder, J. et al. (2004) *Mol Biol Cell* 15, 5516-27.
3. Gebbink, M.F. et al. (1997) *J Cell Biol* 137, 1603-13.
4. Kimura, K. et al. (1996) *Science* 273, 245-8.
5. Birukova, A.A. et al. (2004) *J Cell Physiol* 201, 55-70.
6. Riddick, N. et al. (2008) *J Cell Biochem* 103, 1158-70.
7. Surks, H.K. et al. (2005) *J Biol Chem* 280, 42543-51.
8. Koga, Y. and Ikebe, M. (2005) *J Biol Chem* 280, 4983-91.

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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