

Store at  
-20C  
#60370**RhoG (E9B7Z) Rabbit mAb**

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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	Endogenous	20	Rabbit IgG	#P84095	391

**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, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. *Do not aliquot the antibody.*

**Specificity/Sensitivity**

RhoG (E9B7Z) Rabbit mAb recognizes endogenous levels of total RhoG protein. This antibody does not cross-react with Rac1 or Cdc42 proteins.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala144 of human RhoG protein.

**Background**

Rho family small GTPases, including Rho, Rac and Cdc42, act as molecular switches, regulating processes such as cell migration, adhesion, proliferation, and differentiation. They are activated by guanine nucleotide exchange factors (GEFs), which catalyze the exchange of bound GDP for GTP, and they are inhibited by GTPase activating proteins (GAPs), which catalyze the hydrolysis of GTP to GDP. A third level of regulation is provided by the stoichiometric binding of Rho GDP dissociation inhibitor (RhoGDI) (1). RhoG, a Rho family GTPase similar to Rac1 and Cdc42, regulates actin dynamics and cell migration. RhoG regulates the microtubule-mediated formation of focal adhesions (2), as well as tube formation in vascular endothelial cells (3). RhoG mediates tumor cell invasion in glioblastoma, and regulates paxillin phosphorylation and invadopodia formation in breast cancer cells (4,5).

**Background References**

1. DerMardirossian, C. and Bokoch, G.M. (2005) *Trends Cell Biol* 15, 356-63.
2. Zinn, A. et al. (2019) *Sci Rep* 9, 5163.
3. El Atat, O. et al. (2019) *Cells* 8, pii: E171. doi: 10.3390/cells8020171.
4. Kwiatkowska, A. et al. (2012) *Mol Cancer* 11, 65.
5. Goicoechea, S.M. et al. (2017) *J Cell Sci* 130, 1064-77.

**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

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