

#2564 Store at -20C

RhoGDI Antibody

Cell Signaling
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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H M R B	Endogenous	26	Rabbit	#P52565	396

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

RhoGDI Antibody detects endogenous levels of total RhoGDI protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to human RhoGDI. Antibodies are purified by protein A and peptide affinity chromatography.

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 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). RhoGDI affects Rho activity by inhibiting nucleotide exchange and membrane association, regulating activity and localization (Reviewed in 1, 2). The inhibitory and shuttling functions of RhoGDI have been uncoupled using mutant forms of RhoGDI (3). Phosphorylation of GDIs and/or GTPases can modulate their affinity for each other and, therefore, GTPase mediated signaling. PAK1 phosphorylation of RhoGDI at serines 101 and 174 causes release and activation of Rac1, but not RhoA (4).

Background References

1. DerMardirossian, C. and Bokoch, G.M. (2005) *Trends Cell Biol* 15, 356-63.
2. Dovas, A. and Couchman, J.R. (2005) *Biochem J* 390, 1-9.
3. Dransart, E. et al. (2005) *J Biol Chem* 280, 4674-83.
4. DerMardirossian, C. et al. (2004) *Mol Cell* 15, 117-27.

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

WB: Western Blotting

Cross-Reactivity Key

H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus 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
GP: Guinea Pig Rab: rabbit All: all species expected

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