

# GEF H1 Antibody

Purified Rabbit Polyclonal Antibody (Pab)  
Catalog # AP51844

## Product Information

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<b>Application</b>	WB
<b>Primary Accession</b>	<a href="#">Q92974</a>
<b>Reactivity</b>	Human, Mouse, Rat
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	110 KDa

## Additional Information

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<b>Other Names</b>	Rho guanine nucleotide exchange factor 2, Guanine nucleotide exchange factor H1, GEF-H1, Microtubule-regulated Rho-GEF, Proliferating cell nucleolar antigen p40, ARHGEF2, KIAA0651, LFP40
<b>Target/Specificity</b>	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human GEF H1. The exact sequence is proprietary.
<b>Dilution</b>	WB~~1:1000
<b>Format</b>	0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%
<b>Storage</b>	Store at -20 °C. Stable for 12 months from date of receipt

## Protein Information

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### Background

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Activates Rho-GTPases by promoting the exchange of GDP for GTP. May be involved in epithelial barrier permeability, cell motility and polarization, dendritic spine morphology, antigen presentation, leukemic cell differentiation, cell cycle regulation, innate immune response, and cancer. Binds Rac-GTPases, but does not seem to promote nucleotide exchange activity toward Rac-GTPases, which was uniquely reported in PubMed:9857026. May stimulate instead the cortical activity of Rac. Inactive toward CDC42, TC10, or Ras-GTPases. Forms an intracellular sensing system along with NOD1 for the detection of microbial effectors during cell invasion by pathogens. Required for RHOA and RIP2 dependent NF-kappaB signaling pathways activation upon *S.flexneri* cell invasion. Involved not only in sensing peptidoglycan (PGN)-derived muropeptides through NOD1 that is independent of its GEF activity, but also in the activation of NF-kappaB by Shigella effector proteins (IpgB2 and OspB) which requires its GEF activity and the activation of RhoA. Involved in innate immune signaling transduction pathway promoting cytokine IL6/interleukin-6 and TNF-alpha secretion in macrophage upon stimulation by bacterial peptidoglycans; acts as a signaling intermediate between NOD2 receptor and RIPK2 kinase. Contributes to the tyrosine phosphorylation of RIPK2 through Src tyrosine kinase leading to NF-kappaB activation by NOD2.

## References

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Krendel M.,et al.Nat. Cell Biol. 4:294-301(2002).

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