

Rabbit anti-Human ARHGEF2 Polyclonal Antibody | anti-ARHGEF2 antibody

ARHGEF2 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA325087	Rabbit	Human	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

PRODUCT SYNONYMS

ARHGEF2; Polyclonal Antibody; ARHGEF2 Antibody; AA408978; ARHG2; ARHG2_HUMAN; ARHGEF 2; ARHGEF-2; GEF; GEF H1; GEF-H1; GEFH1; Guanine nucleotide exchange factor H1; KIAA0651; Lbcl1; Lfc; LFP40; MGC95068; Microtubule-regulated Rho-GEF; mKIAA0651; P40; Proliferating cell nucleolar antigen p40; Protein GEF-H1; Rho guanine nucleotide exchange factor 2; rho/rac guanine nucleotide exchange factor (GEF) 2; rho/rac guanine nucleotide exchange factor 2; rho/rac guanine nucleotide exchange factor; anti-ARHGEF2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	IgG
Specificity	ARHGEF2 antibody detects endogenous levels of total ARHGEF2
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	986
Applicable Applications for anti-ARHGEF2 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide
Subcellular Location	Cytoplasm. Cell Junction > Tight Junction. Golgi Apparatus. Cytoplasm > Cytoskeleton > Spindle. Cell projection > Ruffle Membrane. Localizes to the tips of cortical microtubules of the mitotic spindle during cell division, and is further released upon microtubule depolymerization. Recruited into membrane ruffles induced by S.flexneri at tight junctions of polarized epithelial cells.
Tissue Specificity	Up-regulated by bacterial peptidoglycans stimulation, such as muramyl dipeptide and in biopsies from inflamed mucosal areas of Crohn's disease patients.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



WB (Western Blot)

Western blot analysis of extracts from RAW264.7 cells, using ARHGEF2 antibody.



IF (Immunofluorescence)

AAA325087 staining HeLa cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-ARHGEF2 antibody	Function: 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. Overexpression activates Rho-, but not Rac-GTPases, and increases paracellular permeability (By similarity). Involved in neuronal progenitor cell division and differentiation (PubMed:28453519). Involved in the migration of precerebellar neurons (By similarity). Subunit Structure: Found in a complex composed at least of ARHGEF2, NOD2 and RIPK2. Interacts with RIPK2; the interaction mediates tyrosine phosphorylation of RIPK2 by Src kinase CSK. Interacts with RIPK1 and RIPK3. Interacts with YWHAZ/14-3-3 zeta; when phosphorylated at Ser-886. Interacts with the kinases PAK4, AURKA and MAPK1. Interacts with RHOA and RAC1. Interacts with NOD1. Interacts (via the N-terminal zinc finger) with CAPN6 (via domain II). Interacts with DYNLT1 (By similarity). Post-translational Modifications: Phosphorylation of Ser-886 by PAK1 induces binding to protein YWHAZ, promoting its relocation to microtubules and the inhibition of its activity. Phosphorylated by AURKA and CDK1 during mitosis, which negatively regulates its activity. Phosphorylation by MAPK1 or MAPK3 increases nucleotide exchange activity. Phosphorylation by PAK4 releases GEF-H1 from the microtubules. Phosphorylated on serine, threonine and tyrosine residues in a RIPK2-dependent manner. Similarity: The DH (DBL-homology) domain interacts with and promotes loading of GTP on RhoA. Promotes tyrosine phosphorylation of RIPK2.The PH domain has no affinity for phosphoinositides suggesting that it does not interact directly with membranes.The phorbol-ester/DAG-type zinc-finger and the C-terminal coiled-coil domains (606-986) are both important for association with microtubules.
---	--

NCBI AND UNIPROT INFORMATION

NCBI GI #	253735775
NCBI GeneID	9181
NCBI Accession #	NP_001155855.1
NCBI GenBank Nucleotide #	NM_001162383.1
UniProt Accession #	Q92974; O75142; Q15079; Q5VY92; Q8TDA3; Q8WUG4; Q9H023; D3DVA6
Molecular Weight	Observed: 101 kD Predicted: 112 kDa
NCBI Official Full Name	rho guanine nucleotide exchange factor 2 isoform 1
NCBI Official Synonym Full Names	Rho/Rac guanine nucleotide exchange factor 2

NCBI Official Symbol	ARHGEF2
NCBI Official Synonym Symbols	GEF; P40; GEFH1; LFP40; GEF-H1; NEDMHM
NCBI Protein Information	rho guanine nucleotide exchange factor 2
UniProt Protein Name	Rho guanine nucleotide exchange factor 2
UniProt Gene Name	ARHGEF2
UniProt Synonym Gene Names	KIAA0651; LFP40; GEF-H1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/polyclonal/arhgef2-antibody-immunocytochemistry-immunofluorescence-western-blot-elisa/325087>