

Product name:	Lfc Rabbit Polyclonal Antibody
Cat number:	ABN13284
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from C-terminal human ARHGEF2. AA range:851-900
Reactivity:	Human,Mouse,Rat
Applications:	WB 1:500-1:2000,IHC 1:50-1:300,ELISA 1:2000-1:20000
Molecular Weight:	111kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

Rho GTPases play a fundamental role in numerous cellular processes that are initiated by extracellular stimuli that work through G protein coupled receptors. The encoded protein may form complex with G proteins and stimulate rho-dependent signals. Alternatively spliced transcript variants encoding different isoforms have been identified.[provided by RefSeq, Jun 2009],domain:The DH (DBL-homology) domain interacts with and promotes loading of GTP on RhoA.,domain:The PH (pleckstrin-homology) domain is involved in microtubule binding and targeting to tight junctions.,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, 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.,online information:ARHGEF2 entry,PTM:Phosphorylation of Ser-886 by PAK1 induces binding to protein 14-3-3 zeta, promoting its relocation to microtubules and the inhibition of its activity. Phosphorylated by STK6 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.,sequence caution:Sequence differs at a large extent from the sequence shown in the paper.,similarity:Contains 1 DH (DBL-homology) domain.,similarity:Contains 1 PH domain.,similarity:Contains 1 phorbol-ester/DAG-type zinc finger.,subcellular location:Localizes to the tips of cortical microtubules of the mitotic spindle during cell division, and is further released upon microtubule depolymerization.,subunit:Interacts with 14-3-3 zeta; when phosphorylated at Ser-886. Interacts with the kinases PAK4, AURKA/STK6 and MAPK1. Interacts with RHOA and RAC1.,