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**Product Name: Lfc (phospho Ser885) Rabbit Polyclonal Antibody****Catalog #: APRab04952**

For research use only.

**Summary**

<b>Description</b>	Rabbit polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB,IHC,ICC/IF,ELISA
<b>Reactivity</b>	Human,Mouse,Rat
<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Phosphorylated
<b>Isotype</b>	IgG
<b>Clonality</b>	Polyclonal
<b>Form</b>	Liquid
<b>Concentration</b>	1mg/ml
<b>Storage</b>	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
<b>Shipping</b>	Ice bags
<b>Buffer</b>	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
<b>Purification</b>	Affinity purification

**Application**

<b>Dilution Ratio</b>	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:5000-1:10000
<b>Molecular Weight</b>	111kDa

**Antigen Information**

<b>Gene Name</b>	ARHGEF2 ARHGEF2; KIAA0651; LFP40; Rho guanine nucleotide exchange factor 2; Guanine nucleotide
<b>Alternative Names</b>	exchange factor H1; GEF-H1; Microtubule-regulated Rho-GEF; Proliferating cell nucleolar antigen p40
<b>Gene ID</b>	9181.0
<b>SwissProt ID</b>	Q92974
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human Rho/Rac Guanine Nucleotide Exchange Factor 2 around the phosphorylation site of Ser885. AA range:851-900

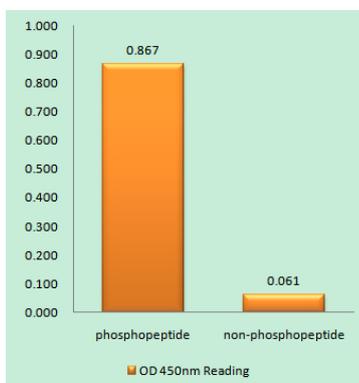
## Background

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.,

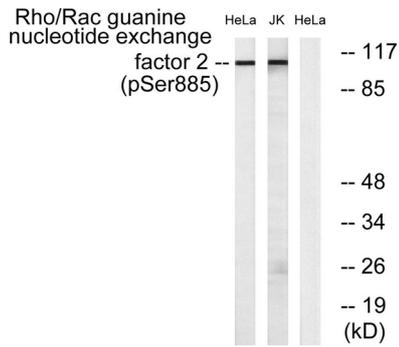
## Research Area

Regulation of Actin Dynamics; AMPK

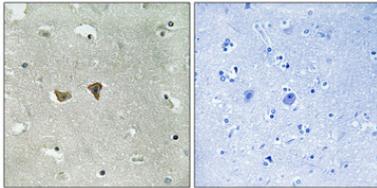
## Image Data



Enzyme-Linked Immunosorbent Assay ( Phospho-ELISA ) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right) , using Rho/Rac Guanine Nucleotide Exchange Factor 2 ( Phospho-Ser885 ) Antibody



Western blot analysis of lysates from HeLa cells treated with TSA 400nM 24H and Jurkat cells treated with forskolin 40nM 30', using Rho/Rac Guanine Nucleotide Exchange Factor 2 (Phospho-Ser885) Antibody. The lane on the right is blocked with the phospho peptide.



Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100 (4°, overnight). High-pressure and temperature Tris-EDTA, pH 8.0 was used for antigen retrieval. Negative control (right) obtained from antibody was pre-absorbed by immunogen peptide.