

## Lfc (Phospho Ser886) Rabbit pAb

CatalogNo: YP0398 **Orthogonal Validated** 

### Key Features

#### Host Species

- Rabbit

#### Reactivity

- Human, Mouse, Rat

#### Applications

- WB, IHC, IF, ELISA

#### MW

- 111kD (Observed)

#### Isotype

- IgG

### Storage

**Storage\*** -15°C to -25°C/1 year (Do not lower than -25°C)

**Formulation** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

### Recommended Dilution Ratios

**WB 1:500-1:2000**

**IHC 1:100-1:300**

**ELISA 1:5000**

**IF 1:50-200**

### Basic Information

**Clonality** Polyclonal

### Immunogen Information

**Immunogen** 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

## Specificity

Phospho-Lfc (S885) Polyclonal Antibody detects endogenous levels of Lfc protein only when phosphorylated at S885. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):RRsLP

## Target Information

**Gene name** ARHGEF2

**Protein Name** Rho guanine nucleotide exchange factor 2

Organism	Gene ID	UniProt ID
Human	<a href="#">9181</a> ;	<a href="#">Q92974</a> ;
Mouse	<a href="#">16800</a> ;	<a href="#">Q60875</a> ;
Rat	<a href="#">310635</a> ;	<a href="#">Q5FVC2</a> ;

## Cellular Localization

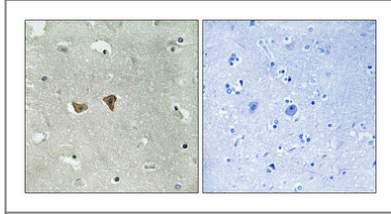
Cytoplasm , cytoskeleton . Cytoplasm . Cell junction , tight junction . Golgi apparatus . Cytoplasm , cytoskeleton , spindle . Cell projection , ruffle membrane . Cytoplasmic vesicle . Localizes to the tips of cortical microtubules of the mitotic spindle during cell division , and is further released upon microtubule depolymerization (PubMed:15827085) . Recruited into membrane ruffles induced by *S.flexneri* at tight junctions of polarized epithelial cells (PubMed:19043560) . Colocalized with NOD2 and RIPK2 in vesicles and with the cytoskeleton (PubMed:21887730) . .

**Tissue specificity** Brain ,Cervix carcinoma ,Epithelium ,Platelet ,

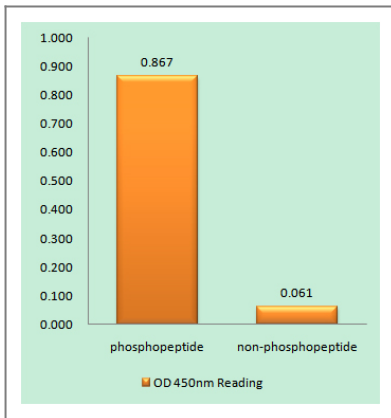
## Function

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. ,

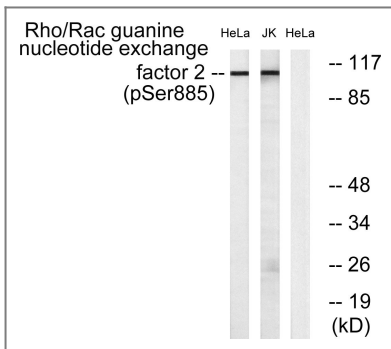
## Validation Data



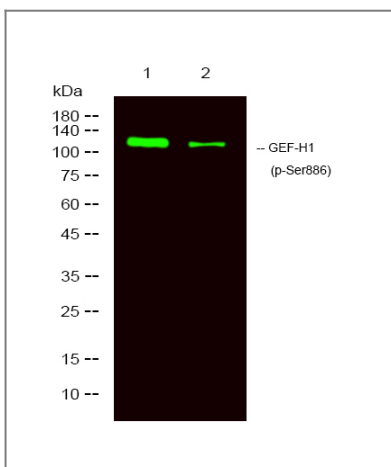
Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100 (4°C overnight). High-pressure and temperature Tris-EDTA, pH 8.0 was used for antigen retrieval. Negative control (right) obtained from antibody was pre-absorbed by immunogen peptide.



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.



Western Blot analysis of 1 A431 treated with LPS, 2 A431, using primary antibody at 1:1000 dilution. Secondary antibody (catalog#:RS23920) was diluted at 1:10000

## Contact information

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Please scan the QR code  
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product information:  
**Lfc (Phospho  
Ser886) Rabbit pAb**

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