

**Anti-GEF H1 (pS885) Antibody**  
Rabbit polyclonal antibody to GEF H1 (pS885)  
Catalog # AP61254

**Specification**

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**Anti-GEF H1 (pS885) Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">Q92974</a>
Other Accession	<a href="#">Q60875</a>
Reactivity	Human, Mouse, Rat, Pig, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	111543

**Anti-GEF H1 (pS885) Antibody - Additional Information**

Gene ID 9181

**Other Names**

KIAA0651; LFP40; Rho guanine nucleotide exchange factor 2; Guanine nucleotide exchange factor H1; GEF-H1; Microtubule-regulated Rho-GEF; Proliferating cell nucleolar antigen p40

**Target/Specificity**

Recognizes endogenous levels of GEF H1 (pS885) protein.

**Dilution**

WB~~WB (1/500 - 1/1000), IH (1/50 - 1/200)

**Format**

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

**Storage**

Store at -20 °C. Stable for 12 months from date of receipt

**Anti-GEF H1 (pS885) Antibody - Protein Information**

Name ARHGEF2

Synonyms KIAA0651, LFP40

**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: <http://www.uniprot.org/citations/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:<a href="http://www.uniprot.org/citations/28453519" target="\_blank">28453519</a>). Involved in the migration of precerebellar neurons (By similarity).

#### Cellular Location

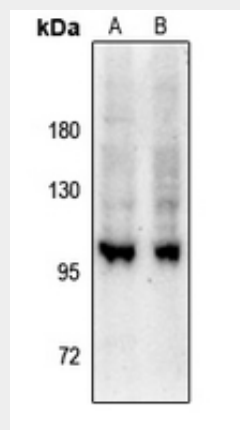
Cytoplasm, cytoskeleton. Cytoplasm. Cell junction, tight junction. Golgi apparatus. Cytoplasm, cytoskeleton, spindle. Cell projection, ruffle membrane. Cytoplasmic vesicle. Note=Localizes to the tips of cortical microtubules of the mitotic spindle during cell division, and is further released upon microtubule 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).

#### Anti-GEF H1 (pS885) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

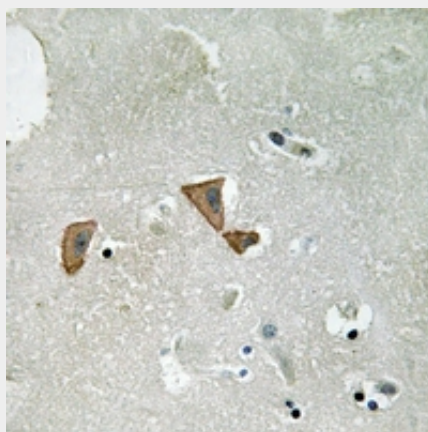
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### Anti-GEF H1 (pS885) Antibody - Images



Western blot analysis of GEF H1 (pS885) expression in HEK293T (A), Myla2059 (B) whole cell

lysates.



Immunohistochemical analysis of GEF H1 (pS885) staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

#### **Anti-GEF H1 (pS885) Antibody - Background**

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human GEF H1 (pS885). The exact sequence is proprietary.