

**Anti-ARHGEF1 Picoband Antibody**  
**Catalog # ABO11663****Specification**

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**Anti-ARHGEF1 Picoband Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">Q92888</a>
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Rho guanine nucleotide exchange factor 1 (ARHGEF1) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-ARHGEF1 Picoband Antibody - Additional Information**

**Gene ID** 9138

**Other Names**

Rho guanine nucleotide exchange factor 1, 115 kDa guanine nucleotide exchange factor, p115-RhoGEF, p115RhoGEF, Sub1.5, ARHGEF1

**Calculated MW**

102435 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Mouse, Rat, Human, By Heat  
<br> Western blot, 0.1-0.5 µg/ml, Human, Rat<br>

**Subcellular Localization**

Cytoplasm . Membrane . Translocated to the membrane by activated GNA13 or LPA stimulation.

**Tissue Specificity**

Ubiquitously expressed. .

**Protein Name**

Rho guanine nucleotide exchange factor 1

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Na<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the N-terminus of human ARHGEF1 (41-71aa EQNSQFQSLEQVKRRPAHLMALLQHVALQFE), different from the related mouse and rat sequences by one amino acid.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

**Storage**

**At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.**

**Anti-ARHGEF1 Picoband Antibody - Protein Information**

**Name** ARHGEF1

**Function**

Seems to play a role in the regulation of RhoA GTPase by guanine nucleotide-binding alpha-12 (GNA12) and alpha-13 (GNA13) subunits (PubMed:<a href="http://www.uniprot.org/citations/9641915" target="\_blank">9641915</a>, PubMed:<a href="http://www.uniprot.org/citations/9641916" target="\_blank">9641916</a>). Acts as a GTPase-activating protein (GAP) for GNA12 and GNA13, and as guanine nucleotide exchange factor (GEF) for RhoA GTPase (PubMed:<a href="http://www.uniprot.org/citations/9641915" target="\_blank">9641915</a>, PubMed:<a href="http://www.uniprot.org/citations/9641916" target="\_blank">9641916</a>, PubMed:<a href="http://www.uniprot.org/citations/8810315" target="\_blank">8810315</a>, PubMed:<a href="http://www.uniprot.org/citations/30521495" target="\_blank">30521495</a>). Activated G alpha 13/GNA13 stimulates the RhoGEF activity through interaction with the RGS-like domain (PubMed:<a href="http://www.uniprot.org/citations/9641916" target="\_blank">9641916</a>). This GEF activity is inhibited by binding to activated GNA12 (PubMed:<a href="http://www.uniprot.org/citations/9641916" target="\_blank">9641916</a>). Mediates angiotensin-2-induced RhoA activation (PubMed:<a href="http://www.uniprot.org/citations/20098430" target="\_blank">20098430</a>).

**Cellular Location**

Cytoplasm. Membrane. Note=Translocated to the membrane by activated GNA13 or LPA stimulation

**Tissue Location**

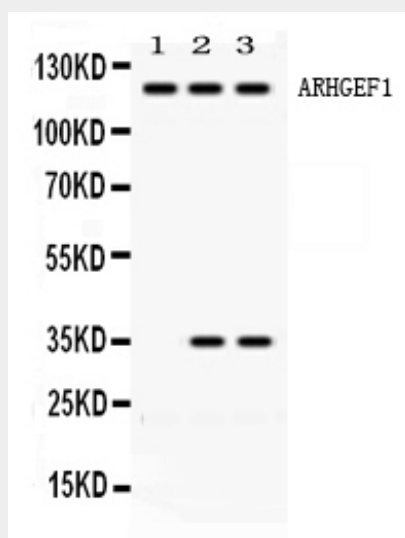
Ubiquitously expressed.

**Anti-ARHGEF1 Picoband Antibody - Protocols**

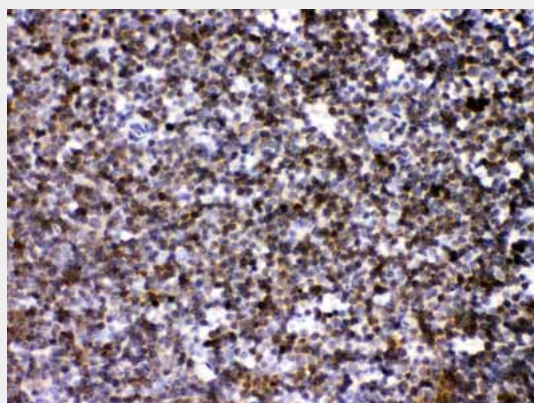
Provided below are standard protocols that you may find useful for product applications.

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

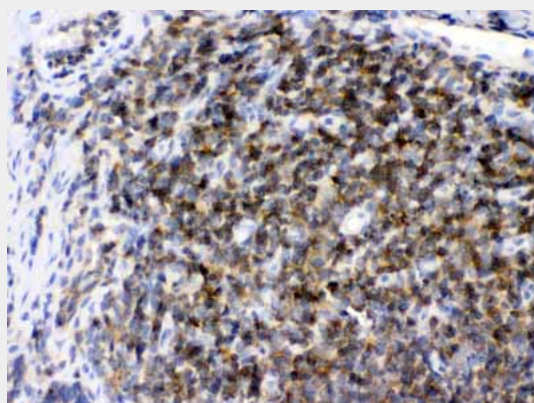
**Anti-ARHGEF1 Picoband Antibody - Images**



Western blot analysis of ARHGEF1 expression in rat brain extract (lane 1), HELA whole cell lysates (lane 2) and JURKAT whole cell lysates (lane 3). ARHGEF1 at 120KD was detected using rabbit anti- ARHGEF1 Antigen Affinity purified polyclonal antibody (Catalog # ABO11663) at 0.5  $\mu$ g/mL. The blot was developed using chemiluminescence (ECL) method .



ARHGEF1 was detected in paraffin-embedded sections of mouse lymphaden tissues using rabbit anti- ARHGEF1 Antigen Affinity purified polyclonal antibody (Catalog # ABO11663) at 1  $\mu$ g/mL. The immunohistochemical section was developed using SABC method .



ARHGEF1 was detected in paraffin-embedded sections of rat lymphaden tissues using rabbit anti- ARHGEF1 Antigen Affinity purified polyclonal antibody (Catalog # ABO11663) at 1  $\mu$ g/mL. The

immunohistochemical section was developed using SABC method .

#### **Anti-ARHGEF1 Picoband Antibody - Background**

Rho guanine nucleotide exchange factor 1 is a protein that in humans is encoded by the ARHGEF1 gene. 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 a complex with G proteins and stimulate Rho-dependent signals. Multiple alternatively spliced transcript variants have been found for this gene, but the full-length nature of some variants has not been defined.