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Anti-ARHGEF1 Picoband Antibody

Catalog # ABO11663

Product Information

Application	WB, IHC-P
Primary Accession	Q92888
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.

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
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Mouse, Rat, Human, By Heat Western blot, 0.1-0.5 □g/ml, Human, Rat
Subcellular Localization	Cytoplasm . Membrane . Translocated to the membrane by activated GNA13 or LPA stimulation.
Tissue Specificity	Ubiquitously expressed. .
Source	Eukaryota
Protein Name	Rho guanine nucleotide exchange factor 1
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
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 r˚Constitution, 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.

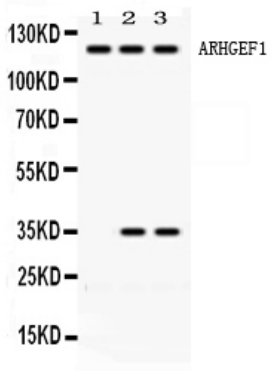
Protein Information

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:9641915, PubMed:9641916). Acts as a GTPase-activating protein (GAP) for GNA12 and GNA13, and as guanine nucleotide exchange factor (GEF) for RhoA GTPase (PubMed:30521495, PubMed:8810315, PubMed:9641915, PubMed:9641916). Activated G alpha 13/GNA13 stimulates the RhoGEF activity through interaction with the RGS-like domain (PubMed:9641916). This GEF activity is inhibited by binding to activated GNA12 (PubMed:9641916). Mediates angiotensin-2-induced RhoA activation (PubMed:20098430). In lymphoid follicles, may trigger activation of GNA13 as part of S1PR2-dependent signaling pathway that leads to inhibition of germinal center (GC) B cell growth and migration outside the GC niche.
Cellular Location	Cytoplasm. Membrane. Note=Translocated to the membrane by activated GNA13 or LPA stimulation
Tissue Location	Ubiquitously expressed.

Background

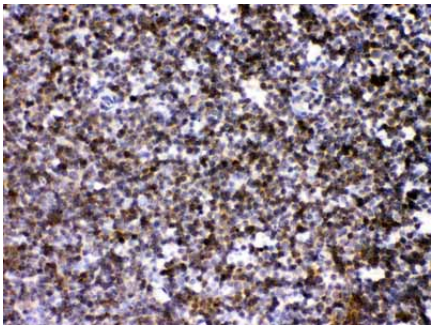
Rho guanine nucleotide exchange factor 1 is a protein that in humans is encoded by the ARHGEF1 gene. Rho GTPases play a fundamental role in numerous cellular processes that are initiated by extracellular stimuli that work through G protein coupled receptors. The encoded protein may form a complex with 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.

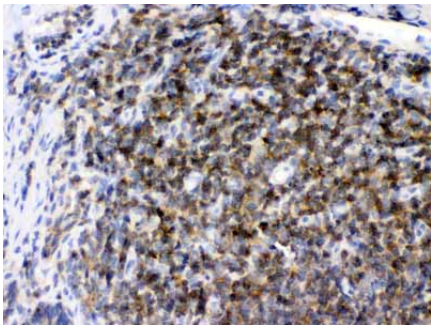
Images



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 □¼g/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 ??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 □¼g/mL. The immunohistochemical section was developed using SABC method .