

ARHGEF18 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP58608

Specification

ARHGEF18 Polyclonal Antibody - Product Information

| | |
|----------------------|---|
| Application | IHC-P, IHC-F, IF, ICC, E |
| Primary Accession | Q6ZS75 |
| Reactivity | Rat, Pig, Dog, Bovine |
| Host | Rabbit |
| Clonality | Polyclonal |
| Calculated MW | 131 kDa |
| Physical State | Liquid |
| Immunogen | KLH conjugated synthetic peptide derived from human ARHGEF18/p114RhoGEF 501-600/1173 |
| Epitope Specificity | IgG |
| Isotype | |
| Purity | affinity purified by Protein A |
| Buffer | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. |
| SUBCELLULAR LOCATION | Cytoplasm. Note: Colocalizes with actin stress fibers. |
| SIMILARITY | Contains 1 DH (DBL-homology) domain. Contains 1 PH domain. |
| SUBUNIT | Interacts with SEPT9; interaction may inhibit GEF activity. Interacts with Gbetagamma subunits GNB1 and GNG2. |
| Important Note | This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. |

Background Descriptions

Rho GTPases are GTP binding proteins that regulate a wide spectrum of cellular functions. These cellular processes include cytoskeletal rearrangements, gene transcription, cell growth and motility. Activation of Rho GTPases is under the direct control of guanine nucleotide exchange factors (GEFs). The protein encoded by this gene is a guanine nucleotide exchange factor and belongs to the Rho GTPase GFE family. Family members share a common feature, a Dbl (DH) homology domain followed by a pleckstrin (PH) homology domain. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Oct 2008].

ARHGEF18 Polyclonal Antibody - Additional Information

Gene ID 23370

Other Names

Rho guanine nucleotide exchange factor 18, 114 kDa Rho-specific guanine nucleotide exchange factor, p114-Rho-GEF, p114RhoGEF, Septin-associated RhoGEF, SA-RhoGEF, ARHGEF18, KIAA0521

Target/Specificity

Expressed in all tissues tested with highest expression in kidney and pancreas. Weakly or not expressed in liver, skeletal muscle and testis.

Dilution

IHC-P~~N/A
IHC-F~~N/A
IF~~1:50~200
ICC~~N/A
E~~N/A

Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

ARHGEF18 Polyclonal Antibody - Protein Information

Name ARHGEF18

Synonyms KIAA0521

Function

Acts as a guanine nucleotide exchange factor (GEF) for RhoA GTPases. Its activation induces formation of actin stress fibers. Also acts as a GEF for RAC1, inducing production of reactive oxygen species (ROS). Does not act as a GEF for CDC42. The G protein beta-gamma (Gbetagamma) subunits of heterotrimeric G proteins act as activators, explaining the integrated effects of LPA and other G-protein coupled receptor agonists on actin stress fiber formation, cell shape change and ROS production. Required for EPB41L4B-mediated regulation of the circumferential actomyosin belt in epithelial cells (PubMed:22006950).

Cellular Location

Cytoplasm. Cytoplasm, cytoskeleton. Cell membrane. Apical cell membrane. Note=In unactivated eosinophils, distributed around the cell periphery in the perimembranous region (PubMed:29601110). In activated eosinophils, relocates to the tip of the nucleopod, a membrane structure formed during activation when the nucleus moves to one end of the cell, and is also concentrated in membrane protrusions at the opposite end of the cell (PubMed:29601110) Localizes to the apical cell membrane in epithelial cells (PubMed:22006950).

Tissue Location

Expressed in all tissues tested with highest expression in kidney and pancreas. Weakly or not expressed in liver, skeletal muscle and testis. Isoform 1: Expressed in eosinophils (PubMed:29601110). Isoform 2: Expressed in eosinophils (PubMed:29601110). Isoform 3: Expressed in eosinophils (PubMed:29601110). Isoform 4: Not detected in eosinophils (PubMed:29601110).

ARHGEF18 Polyclonal 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](#)

ARHGEF18 Polyclonal Antibody - Images