10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ARHGEF18 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP17912a

Specification

ARHGEF18 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q6ZSZ5

ARHGEF18 Antibody (N-term) Blocking Peptide - 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

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ARHGEF18 Antibody (N-term) Blocking Peptide - 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 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

ARHGEF18 Antibody (N-term) Blocking Peptide - Images

ARHGEF18 Antibody (N-term) Blocking Peptide - Background

Rho GTPases are GTP binding proteins that regulate a widespectrum of cellular functions. These cellular processes includecytoskeletal rearrangements, gene transcription, cell growth andmotility. Activation of Rho GTPases is under the direct control ofguanine nucleotide exchange factors (GEFs). The protein encoded bythis gene is a guanine nucleotide exchange factor and belongs tothe Rho GTPase GFE family. Family members share a common feature, aDbl (DH) homology domain followed by a pleckstrin (PH) homologydomain. Alternatively spliced transcript variants encodingdifferent isoforms have been identified.

ARHGEF18 Antibody (N-term) Blocking Peptide - References

Ichikawa, S., et al. J. Bone Miner. Res. 25(8):1821-1829(2010)Niu, J., et al. Circ. Res. 93(9):848-856(2003)Rabizadeh, S., et al. Cytokine Growth Factor Rev. 14 (3-4), 225-239 (2003) :Salehi, A.H., et al. J. Biol. Chem. 277(50):48043-48050(2002)Harrington, A.W., et al. J. Neurosci. 22(1):156-166(2002)