

# Rabbit Anti-ARHGEF18 antibody

# SL7144R

Product Name:	ARHGEF18
Chinese Name:	G protein-coupled receptorARHGEF18抗体
Alias:	p114RhoGEF; 114 kDa Rho specific guanine nucleotide exchange factor; ARHGEF 18; ARHGEF18; KIAA0521; MGC15913; p114 Rho GEF; p114-Rho-GEF; Rho specific guanine nucleotide exchange factor p114; Rho-specific guanine nucleotide exchange factor p114; Rho/Rac guanine nucleotide exchange factor (GEF) 18; Rho/Rac guanine nucleotide exchange factor 18; SA RhoGEF; Septin associated RhoGEF; ARHGI HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human, Mouse, Rat, Chicken, Dog, Pig, Cow, Sheep,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	131kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human ARHGEF18/p114RhoGEF:501-600/1173
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20 °C. 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.
PubMed:	PubMed
Product Detail:	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].

#### **Function:**

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). p114RgoGEF cts as guanine nucleotide exchange factor (GEF) for RhoA GTPases. It may play a role in actin cytoskeleton reorganization in different tissues since its activation induces formation of actin stress fibers. It also act as a GEF for RAC1, inducing production of reactive oxygen species (ROS), but does not act as a GEF for CDC42. The G protein betagamma (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.

#### Subunit:

Interacts with SEPT9; interaction may inhibit GEF activity. Interacts with Gbetagamma subunits GNB1 and GNG2.

#### **Subcellular Location:**

Cytoplasm. Note: Colocalizes with actin stress fibers.

# Tissue Specificity:

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

#### Similarity:

Contains 1 DH (DBL-homology) domain.

Contains 1 PH domain.

### **SWISS:**

Q6ZSZ5

#### Gene ID:

23370

#### Database links:

Entrez Gene: 23370 Human

Entrez Gene: 102098 Mouse

Entrez Gene: 304193 Rat

SwissProt: Q6ZSZ5 Human

SwissProt: Q6P9R4 Mouse

<u>Unigene: 465761</u> Human

Unigene: 736818 Human

Unigene: 170461 Mouse

# **Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.