



Rabbit Anti-RhoA antibody

SL1180R

Product Name:	RhoA
Chinese Name:	RhoA抗体
Alias:	RhoA protein; Aplysia ras related homolog 12; ARH 12; ARH12; ARHA; H 12; Oncogene RHO H12; Ras homolog gene family member A; RHO 12; Rho A; RHO H12; RHO12; RHOH 12; RHOH12; Small GTP binding protein Rho A; Small GTP binding protein RhoA; Transforming protein Rho A; Transforming protein RhoA.
文献引用 PubMed :	<p>Specific References(1) SL1180R has been referenced in 1 publications.</p> <p>[IF=1.06]Li, Wei, et al. "Tanshinone II a protects against liopolysaccharides-induced endothelial cell injury via Rho/Rho kinase pathway." Chinese Journal of Integrative Medicine 20 (2014): 216-223.WB;Human.</p> <p style="text-align: right;">PubMed:24615214</p>
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Rabbit,Daniorerio
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1µg/TestIF=1:200-800 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	21kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human RhoA:101-193/193
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:	<p>This gene encodes a member of the Rho family of small GTPases, which cycle between inactive GDP-bound and active GTP-bound states and function as molecular switches in signal transduction cascades. Rho proteins promote reorganization of the actin cytoskeleton and regulate cell shape, attachment, and motility. The protein encoded by this gene is prenylated at its C-terminus, and localizes to the cytoplasm and plasma membrane. It is thought to be important in cell locomotion. Overexpression of this gene is associated with tumor cell proliferation and metastasis. Multiple alternatively spliced variants, encoding the same protein, have been identified.</p> <p>Function: Regulates a signal transduction pathway linking plasma membrane receptors to the assembly of focal adhesions and actin stress fibers. Involved in a microtubule-dependent signal that is required for the myosin contractile ring formation during cell cycle cytokinesis. Plays an essential role in cleavage furrow formation. Required for the apical junction formation of keratinocyte cell-cell adhesion. Serves as a target for the yopT cysteine peptidase from <i>Yersinia pestis</i>, vector of the plague, and <i>Yersinia pseudotuberculosis</i>, which causes gastrointestinal disorders. Stimulates PKN2 kinase activity. May be an activator of PLCE1. Activated by ARHGEF2, which promotes the exchange of GDP for GTP. Essential for the SPATA13-mediated regulation of cell migration and adhesion assembly and disassembly. The MEMO1-RHOA-DIAPH1 signaling pathway plays an important role in ERBB2-dependent stabilization of microtubules at the cell cortex. It controls the localization of APC and CLASP2 to the cell membrane, via the regulation of GSK3B activity. In turn, membrane-bound APC allows the localization of the MACF1 to the cell membrane, which is required for microtubule capture and stabilization.</p> <p>Subunit: Interacts with ARHGEF28. Binds PRKCL1, ROCK1 and ROCK2. Interacts with ARHGEF2, ARHGEF3, NET1 and RTKN. Interacts with PLCE1 and AKAP13. Interacts (in the constitutively activated, GTP-bound form) with DGKQ. Interacts with human respiratory syncytial virus (HRSV) protein F; this interaction facilitates virus-induced syncytium formation. Interacts with GNB2L1/RACK1; enhances RHOA activation. Interacts with PKP4; the interaction is detected at the midbody. Interacts (GTP-bound form preferentially) with PKN2; the interaction stimulates autophosphorylation and phosphorylation of PKN2.</p> <p>Subcellular Location: Cell membrane; Lipid-anchor; Cytoplasmic side. Cytoplasm, cytoskeleton. Cleavage furrow. Cytoplasm, cell cortex. Midbody. Note=Localized to cell-cell contacts in calcium-treated keratinocytes. Translocates to the equatorial region before furrow formation in a ECT2-dependent manner. Localizes to the equatorial cell cortex (at the site of the presumptive furrow) in early anaphase in a activated form and in a myosin-</p>

and actin-independent manner.

Post-translational modifications:

Substrate for botulinum ADP-ribosyltransferase.

Cleaved by yopT protease when the cell is infected by some Yersinia pathogens. This removes the lipid attachment, and leads to its displacement from plasma membrane and to subsequent cytoskeleton cleavage.

AMPylation at Tyr-34 and Thr-37 are mediated by bacterial enzymes in case of infection by H.somnus and V.parahaemolyticus, respectively. AMPylation occurs in the effector region and leads to inactivation of the GTPase activity by preventing the interaction with downstream effectors, thereby inhibiting actin assembly in infected cells. It is unclear whether some human enzyme mediates AMPylation; FICD has such ability in vitro but additional experiments remain to be done to confirm results in vivo.

Phosphorylation by PRKG1 at Ser-188 inactivates RHOA signaling.

Ubiquitinated by the BCR(BACURD1) and BCR(BACURD2) E3 ubiquitin ligase complexes, leading to its degradation by the proteasome, thereby regulating the actin cytoskeleton and cell migration.

Similarity:

Belongs to the small GTPase superfamily. Rho family.

SWISS:

P61586

Gene ID:

387

Database links:

[Entrez Gene: 395442](#)Chicken

[Entrez Gene: 338049](#)Cow

[Entrez Gene: 387](#)Human

[Entrez Gene: 11848](#)Mouse

[Entrez Gene: 117273](#)Rat

[Omin: 165390](#)Human

[SwissProt: P61585](#)Cow

[SwissProt: P61586](#)Human

[SwissProt: Q9QUI0](#)Mouse

[SwissProt: P61589](#)Rat

[Unigene: 247077](#)Human

[Unigene: 757](#)Mouse

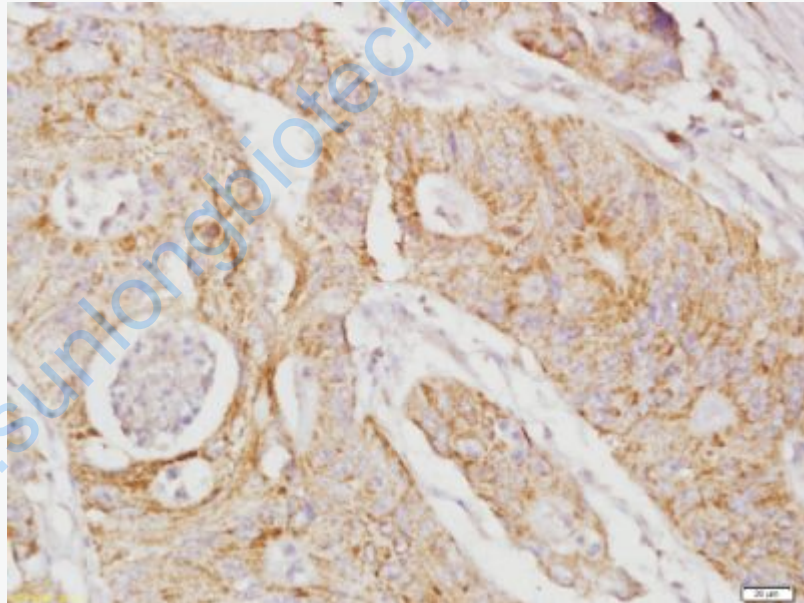
[Unigene: 107401](#)Rat

Important Note:

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

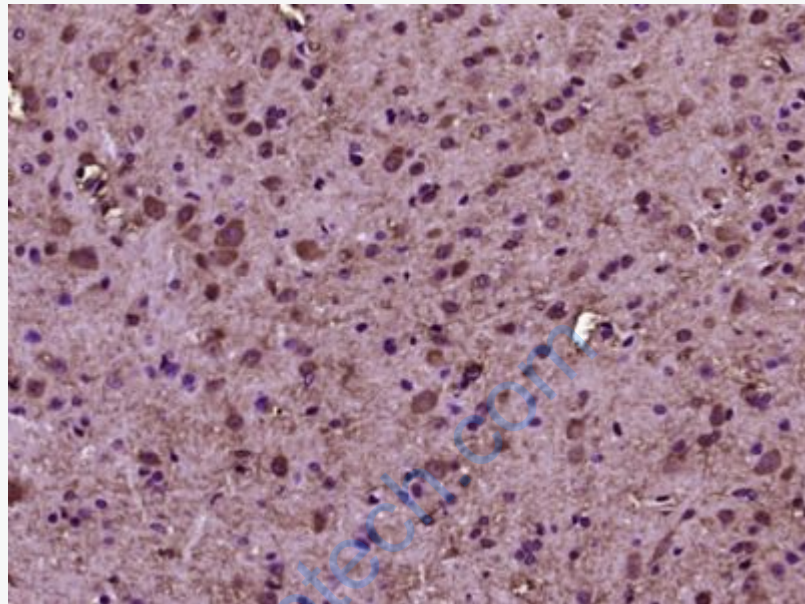
RhoA蛋白主要分布在细胞质和The cell membrane,RhoA蛋白家族是控制Cytoskeleton蛋白组合、调节基因表达等细胞活动过程中的关键Signal transduction成分。通常,RhoA通过激活其下游的Rho连接激酶(Rho associated kinase,ROK)而起作用。在调节Cytoskeleton组建的过程中,RhoA与其作用对象均在胞质内。

Picture:

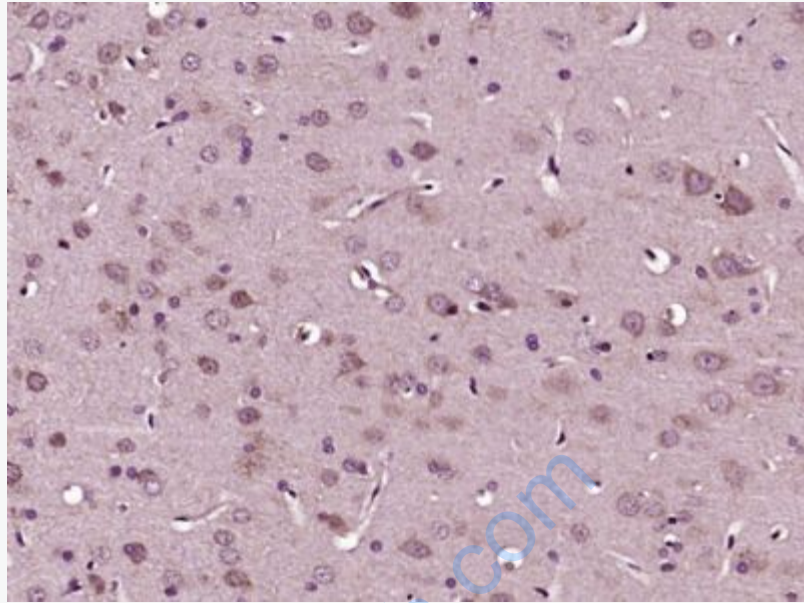


Paraformaldehyde-fixed, paraffin embedded (Human colon cancer); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (RhoA) Polyclonal Antibody, Unconjugated (SL1180R) at 1:400 overnight at 4°C, followed by operating

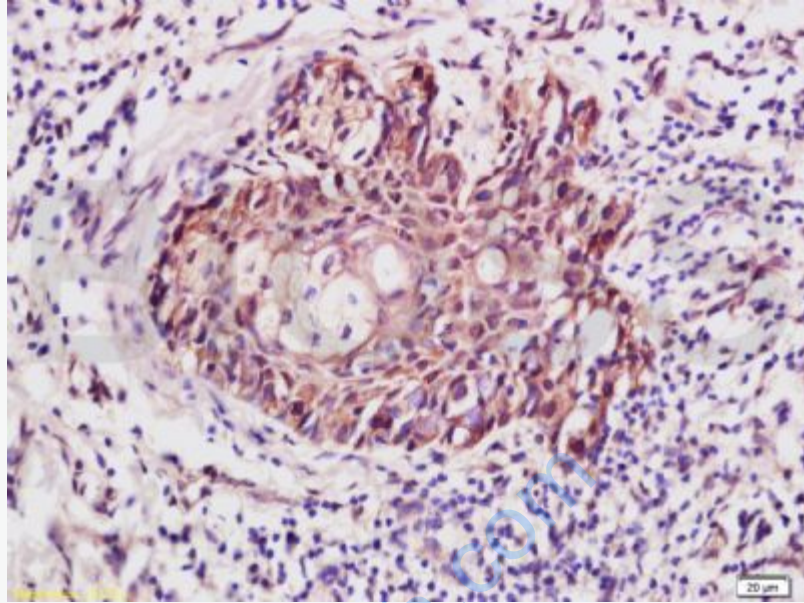
according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Mouse cerebellum); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (RhoA) Polyclonal Antibody, Unconjugated (SL1180R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



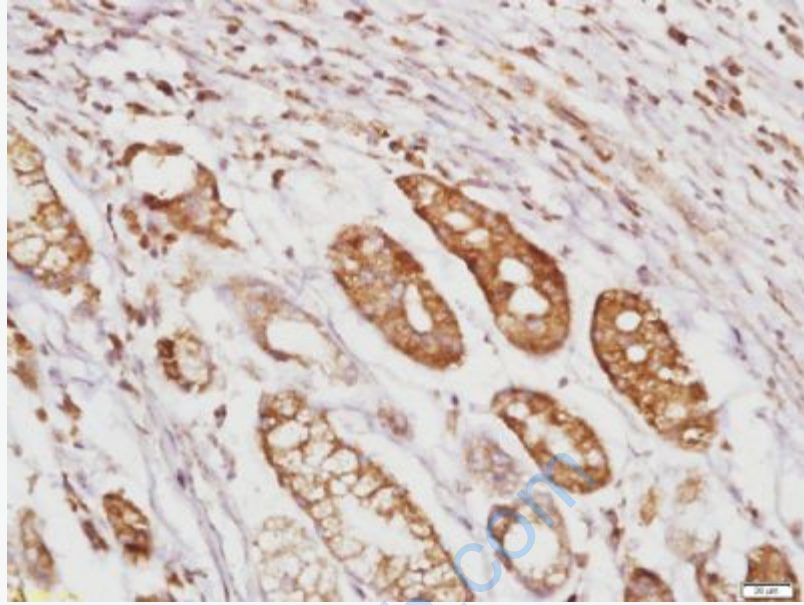
Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (RhoA) Polyclonal Antibody, Unconjugated (SL1180R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



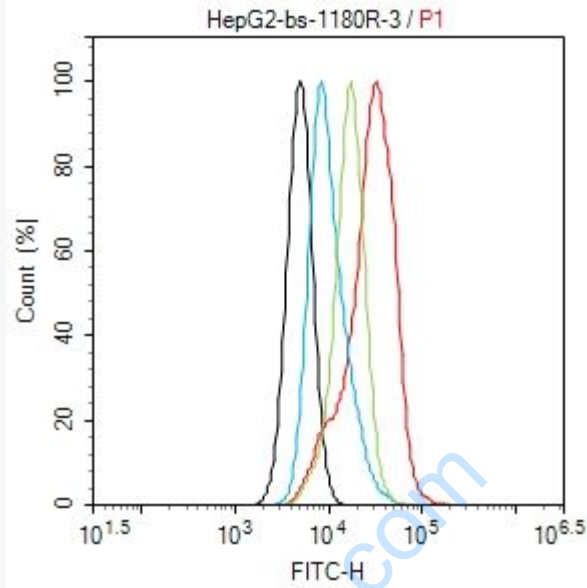
Tissue/cell: the skin of human vulva tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-RhoA Polyclonal Antibody, Unconjugated(SL1180R) 1:400, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Paraformaldehyde-fixed, paraffin embedded (Human stomach cancer); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (RhoA) Polyclonal Antibody, Unconjugated (SL1180R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.

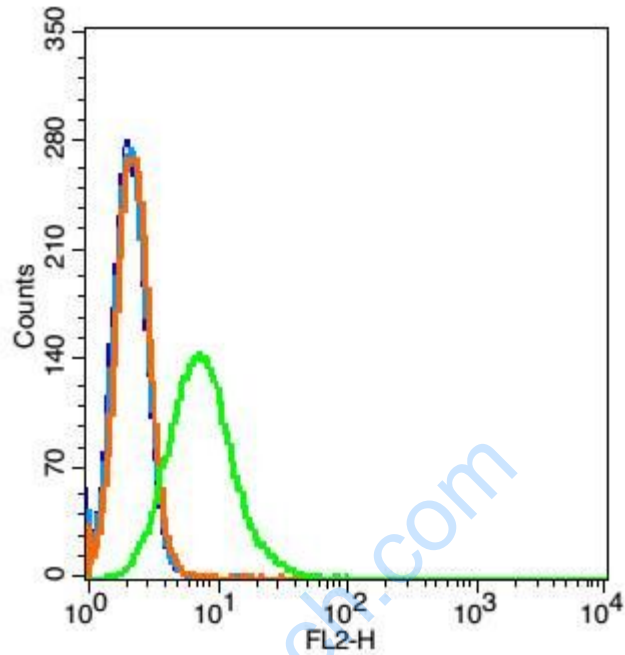


Blank control (black line): HepG2(black) (The cells were fixed with 2% paraformaldehyde (10 min) , then permeabilized with PBST for 30 min on room temperature)

Primary Antibody (Red line): Rabbit Anti-RhoA antibody(Ser32) antibody (SL1180R) ; Dilution: $1\mu\text{g} / 10^6$ cells;

Isotype Control Antibody (green line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-FITC;Dilution: $1\mu\text{g} / \text{test}$.



Blank control: Hela(blue), the cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with ice-cold 90% methanol for 30 min on ice.

Isotype Control Antibody: Rabbit IgG(orange) ; Secondary Antibody: Goat anti-rabbit IgG-PE(white blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA ;

Primary Antibody Dilution: 1 μ g in 100 μ L 1X PBS containing 0.5% BSA(green).