

**Anti-Rho RHOA Rabbit Monoclonal Antibody**  
Catalog # ABO13262**Specification****Anti-Rho RHOA Rabbit Monoclonal Antibody - Product Information**

Application	WB, IHC, IF, ICC
Primary Accession	<a href="#">P61586</a>
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid

**Description**

Anti-Rho RHOA Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF applications. This antibody reacts with Human, Mouse, Rat.

**Anti-Rho RHOA Rabbit Monoclonal Antibody - Additional Information**

**Gene ID** 387

**Other Names**

Transforming protein RhoA, 3.6.5.2, Rho cDNA clone 12, h12, RHOA ([http://www.genenames.org/cgi-bin/gene\\_symbol\\_report?hgnc\\_id=667](http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=667) target="\_blank">HGNC:667</a>), ARH12, ARHA, RHO12

**Calculated MW**

21768 MW KDa

**Application Details**

WB 1:1000-1:2000<br>IHC 1:50-1:200<br>ICC/IF 1:50-1:200

**Subcellular Localization**

Cell membrane; Lipid-anchor; Cytoplasmic side. Cytoplasm, cytoskeleton. Cleavage furrow. Cytoplasm, cell cortex. Midbody. Cell projection, lamellipodium. Localized to cell-cell contacts in calcium-treated keratinocytes (By similarity). 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- and actin-independent manner..

**Contents**

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

**Immunogen**

A synthesized peptide derived from human Rho

**Purification**

Affinity-chromatography

Storage

**Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.**

## Anti-Rho RHOA Rabbit Monoclonal Antibody - Protein Information

Name RHOA ([HGNC:667](#))

Synonyms ARH12, ARHA, RHO12

### Function

Small GTPase which cycles between an active GTP-bound and an inactive GDP-bound state. Mainly associated with cytoskeleton organization, in active state binds to a variety of effector proteins to regulate cellular responses such as cytoskeletal dynamics, cell migration and cell cycle (PubMed: [23871831](http://www.uniprot.org/citations/23871831)). Regulates a signal transduction pathway linking plasma membrane receptors to the assembly of focal adhesions and actin stress fibers (PubMed: [31570889](http://www.uniprot.org/citations/31570889), PubMed: [8910519](http://www.uniprot.org/citations/8910519), PubMed: [9121475](http://www.uniprot.org/citations/9121475)). Involved in a microtubule-dependent signal that is required for the myosin contractile ring formation during cell cycle cytokinesis (PubMed: [12900402](http://www.uniprot.org/citations/12900402), PubMed: [16236794](http://www.uniprot.org/citations/16236794)). Plays an essential role in cleavage furrow formation. Required for the apical junction formation of keratinocyte cell-cell adhesion (PubMed: [20974804](http://www.uniprot.org/citations/20974804), PubMed: [23940119](http://www.uniprot.org/citations/23940119)). Essential for the SPATA13-mediated regulation of cell migration and adhesion assembly and disassembly (PubMed: [19934221](http://www.uniprot.org/citations/19934221)). 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 (PubMed: [20937854](http://www.uniprot.org/citations/20937854)). Regulates KCNA2 potassium channel activity by reducing its location at the cell surface in response to CHR1 activation; promotes KCNA2 endocytosis (PubMed: [19403695](http://www.uniprot.org/citations/19403695), PubMed: [9635436](http://www.uniprot.org/citations/9635436)). Acts as an allosteric activator of guanine nucleotide exchange factor ECT2 by binding in its activated GTP-bound form to the PH domain of ECT2 which stimulates the release of PH inhibition and promotes the binding of substrate RHOA to the ECT2 catalytic center (PubMed: [31888991](http://www.uniprot.org/citations/31888991)). May be an activator of PLCE1 (PubMed: [16103226](http://www.uniprot.org/citations/16103226)). In neurons, involved in the inhibition of the initial spine growth. Upon activation by CaMKII, modulates dendritic spine structural plasticity by relaying CaMKII transient activation to synapse-specific, long-term signaling (By similarity). Acts as a regulator of platelet alpha-granule release during activation and aggregation of platelets (By similarity).

### Cellular Location

Cell membrane; Lipid-anchor; Cytoplasmic side. Cytoplasm, cytoskeleton. Cleavage furrow. Cytoplasm, cell cortex. Midbody. Cell projection, lamellipodium {ECO:0000250|UniProtKB:Q9QUI0}. Cell projection, dendrite {ECO:0000250|UniProtKB:Q9QUI0}. Nucleus Cytoplasm. Note=Localized to cell-cell contacts in calcium-treated keratinocytes (By similarity). 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

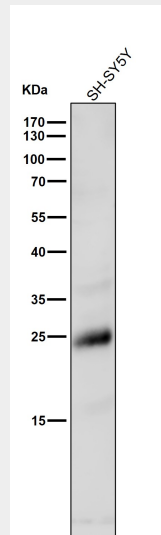
anaphase in an activated form and in a myosin- and actin-independent manner.  
{ECO:0000250|UniProtKB:Q9QUI0}

### Anti-Rho RHOA Rabbit Monoclonal Antibody - Protocols

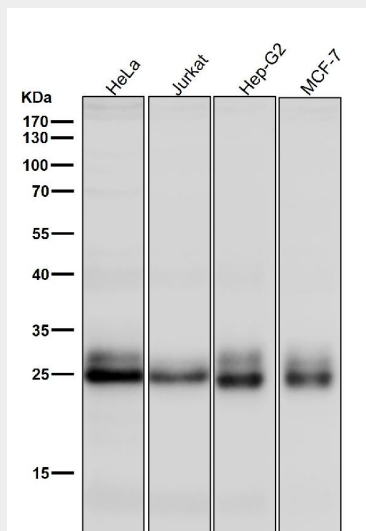
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

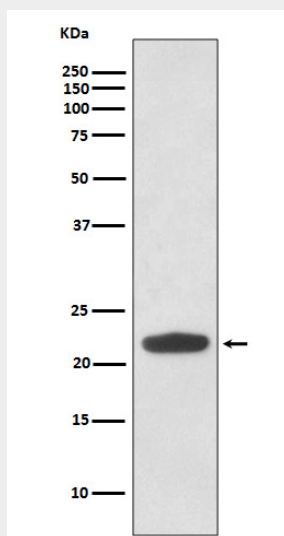
### Anti-Rho RHOA Rabbit Monoclonal Antibody - Images



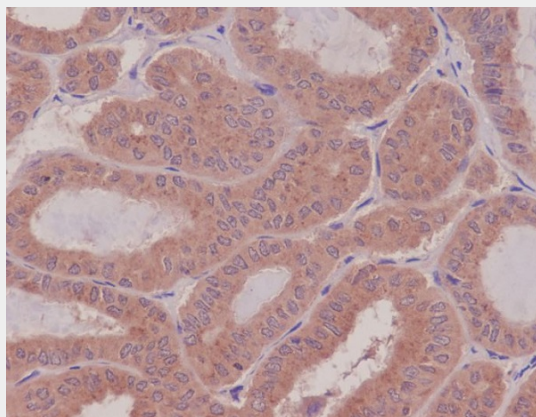
All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.



All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.



Western blot analysis of Rho expression in HeLa cell lysate.



Immunohistochemical analysis of paraffin-embedded human thyroid cancer, using Rho Antibody.