

**Product Name: Rho A (11B6) Rabbit Monoclonal Antibody**  
**Catalog #: AMRe17118**

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## Summary

<b>Production Name</b>	Rho A (11B6) Rabbit Monoclonal Antibody
<b>Description</b>	Rabbit Monoclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB
<b>Reactivity</b>	Human,Mouse,Rat

## Performance

<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	IgG
<b>Clonality</b>	Monoclonal
<b>Form</b>	Liquid
<b>Storage</b>	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
<b>Buffer</b>	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type preservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Purification</b>	Affinity purification

## Immunogen

<b>Gene Name</b>	RHOA
<b>Alternative Names</b>	RHOA; ARH12; ARHA; RHO12; RHOH12;
<b>Gene ID</b>	387.0
<b>SwissProt ID</b>	P61586.

## Application

<b>Dilution Ratio</b>	WB 1:500-1:2000
<b>Molecular Weight</b>	22kDa

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## Background

Rho A is a small G protein of the Rho family. Regulates a signal transduction pathway linking plasma membrane receptors to the assembly of focal adhesions and actin stress fibers. 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. Regulates a signal transduction pathway linking plasma membrane receptors to the assembly of focal adhesions and actin stress fibers (PubMed: [8910519](http://www.uniprot.org/citations/8910519), PubMed: [9121475](http://www.uniprot.org/citations/9121475), PubMed: [31570889](http://www.uniprot.org/citations/31570889)). Involved in a microtubule-dependent signal that is required for the myosin contractile ring formation during cell cycle cytokinesis (PubMed: [16236794](http://www.uniprot.org/citations/16236794), PubMed: [12900402](http://www.uniprot.org/citations/12900402)). 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: [9635436](http://www.uniprot.org/citations/9635436), PubMed: [19403695](http://www.uniprot.org/citations/19403695)). 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).

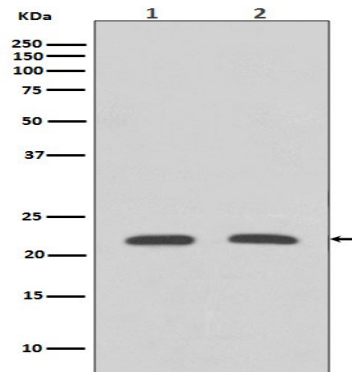
## Research Area

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## Image Data



Western blot analysis of Rho A expression in (1) HeLa cell lysate; (2) NIH/3T3 cell lysate.

## Note

For research use only.