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

For research use only.

**Summary**

|                      |  |
|----------------------|--|
| <b>Description</b>   | Recombinant rabbit monoclonal antibody   |
| <b>Host</b>          | Rabbit   |
| <b>Application</b>   | WB,ICC/IF,FC   |
| <b>Reactivity</b>    | Human,Mouse,Rat  |
| <b>Conjugation</b>   | Unconjugated   |
| <b>Modification</b>  | Unmodified   |
| <b>Isotype</b>       | IgG  |
| <b>Clonality</b>     | Monoclonal   |
| <b>Form</b>          | Liquid   |
| <b>Concentration</b> | 0.3mg/ml. The concentration of this product may be batch-dependent.  |
| <b>Storage</b>       | Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.  |
| <b>Shipping</b>      | Ice bags   |
| <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  |

**Application**

|                         |  |
|-------------------------|--|
| <b>Dilution Ratio</b>   | WB 1:1000-1:5000,ICC/IF 1:100-1:200,FC 1:100-1:200 |
| <b>Molecular Weight</b> | 22kDa  |

**Antigen Information**

|                          |                                   |
|--------------------------|-----------------------------------|
| <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                            |
| <b>Immunogen</b>         | A synthetic peptide of human RhoA |

**Background**

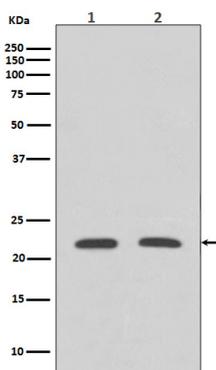
Rho A is a small G protein of the Rho family. Regulates a signal transduction pathway linking plasma membrane receptors to

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, PubMed:9121475, PubMed:31570889). Involved in a microtubule-dependent signal that is required for the myosin contractile ring formation during cell cycle cytokinesis (PubMed:16236794, PubMed:12900402). Plays an essential role in cleavage furrow formation. Required for the apical junction formation of keratinocyte cell-cell adhesion (PubMed:20974804, PubMed:23940119). Essential for the SPATA13-mediated regulation of cell migration and adhesion assembly and disassembly (PubMed: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). Regulates KCNA2 potassium channel activity by reducing its location at the cell surface in response to CHRM1 activation; promotes KCNA2 endocytosis (PubMed:9635436, PubMed: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). May be an activator of PLCE1 (PubMed: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

Signal Transduction

## Image Data



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