

## Product datasheet

# Recombinant Human RhoA protein ab101594

[1 References](#) [2 Images](#)

### Description

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<b>Product name</b>	Recombinant Human RhoA protein
<b>Purity</b>	> 85 % SDS-PAGE. The purity was determined to be >85% by densitometry
<b>Expression system</b>	Escherichia coli
<b>Accession</b>	<a href="#">P61586</a>
<b>Protein length</b>	Full length protein
<b>Animal free</b>	No
<b>Nature</b>	Recombinant
<b>Species</b>	Human
<b>Predicted molecular weight</b>	23 kDa including tags
<b>Amino acids</b>	1 to 193
<b>Tags</b>	His tag N-Terminus

### Specifications

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Our [Abpromise guarantee](#) covers the use of **ab101594** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<b>Applications</b>	Western blot SDS-PAGE
<b>Form</b>	Liquid

### Preparation and Storage

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<b>Stability and Storage</b>	Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles. pH: 7.00 Preservative: 1.02% Imidazole Constituents: 1.045% MOPS, 0.00174% PMSF, 0.00385% DTT, 25% Glycerol, 1.74% Sodium chloride
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### General Info

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**Function**

Regulates a signal transduction pathway linking plasma membrane receptors to the assembly of focal adhesions and actin stress fibers. Serves as a target for the yopT cysteine peptidase from *Yersinia pestis*, vector of the plague, and *Yersinia pseudotuberculosis*, which causes gastrointestinal disorders. May be an activator of PLCE1. Activated by ARHGEF2, which promotes the exchange of GDP for GTP.

**Sequence similarities**

Belongs to the small GTPase superfamily. Rho family.

**Domain**

The basic-rich region is essential for yopT recognition and cleavage.

**Post-translational modifications**

Substrate for botulinum ADP-ribosyltransferase.

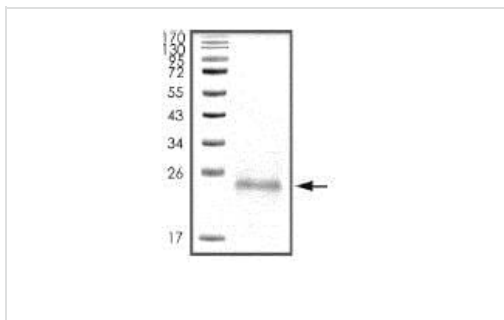
Cleaved by yopT protease when the cell is infected by some *Yersinia* pathogens. This removes the lipid attachment, and leads to its displacement from plasma membrane and to subsequent cytoskeleton cleavage.

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.

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.

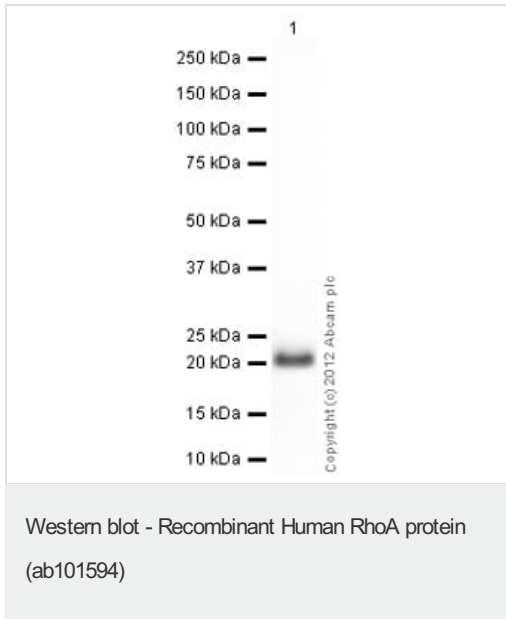
**Cellular localization**

Cell membrane. Cytoplasm > cytoskeleton.

**Images**

SDS-PAGE analysis of ab101594

SDS-PAGE - Recombinant Human RhoA protein  
(ab101594)



Anti-RhoA antibody ([ab86297](#)) at 1 µg/ml + Recombinant Human RhoA protein (ab101594) at 0.01 µg

**Secondary**

Goat Anti-Rabbit IgG H&L (HRP) preadsorbed ([ab97080](#)) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Exposure time:** 10 seconds

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