

Product datasheet

Recombinant Human RhoA protein ab91068

Description

Product name	Recombinant Human RhoA protein
Purity	> 90 % SDS-PAGE.
Expression system	Escherichia coli
Accession	<u>P61586</u>
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Additional sequence information	AF498970

Specifications

Our **Abpromise guarantee** covers the use of **ab91068** in the following tested applications.

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

Applications	SDS-PAGE
Form	Liquid

Preparation and Storage

Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles. pH: 7.20 Constituents: 0.00088% GDP, 0.019% Magnesium chloride, 0.077% DTT, 0.595% HEPES, 0.232% Sodium chloride
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General Info

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.
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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	<p>Substrate for botulinum ADP-ribosyltransferase.</p> <p>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.</p> <p>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.</p> <p>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.</p>
Cellular localization	Cell membrane. Cytoplasm > cytoskeleton.

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