

# Anti-RACGAP1/MGCRACGAP antibody ab97315

[5 Images](#)

### Overview

<b>Product name</b>	Anti-RACGAP1/MGCRACGAP antibody
<b>Description</b>	Rabbit polyclonal to RACGAP1/MGCRACGAP
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Human
<b>Immunogen</b>	Recombinant fragment corresponding to Human RACGAP1/MGCRACGAP aa 1-172. (AAH32754)
<b>Positive control</b>	WB: A431 and Raji whole cell, mouse heart tissue lysate; IHC-P: Human hepatoma and H1299 xenograft tissue; IF: A431 whole cell.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	<p>pH: 7.00</p> <p>Preservative: 0.01% Thimerosal (merthiolate)</p> <p>Constituents: 1.21% Tris, 0.75% Glycine, 10% Glycerol (glycerin, glycerine)</p>
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

### Applications

## The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab97315 in the following tested applications.

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

Application	Abreviews	Notes
WB		1/500 - 1/3000. Predicted molecular weight: 71 kDa.
IHC-P		1/100 - 1/500.
ICC/IF		1/100 - 1/1000.

## Target

### Function

Component of the centralspindlin complex that serves as a microtubule-dependent and Rho-mediated signaling required for the myosin contractile ring formation during the cell cycle cytokinesis. Plays key roles in controlling cell growth and differentiation of hematopoietic cells through mechanisms other than regulating Rac GTPase activity. Also involved in the regulation of growth-related processes in adipocytes and myoblasts. May be involved in regulating spermatogenesis and in the RACGAP1 pathway in neuronal proliferation. Shows strong GAP (GTPase activation) activity towards CDC42 and RAC1 and less towards RHOA. Essential for the early stages of embryogenesis. May play a role in regulating cortical activity through RHOA during cytokinesis. May participate in the regulation of sulfate transport in male germ cells.

### Tissue specificity

Highly expressed in testis, thymus and placenta. Expressed at lower levels in spleen and peripheral blood lymphocytes. In testis, expression is restricted to germ cells with the highest levels of expression found in spermatocytes. Expression is regulated in a cell cycle-dependent manner and peaks during G2/M phase.

### Sequence similarities

Contains 1 phorbol-ester/DAG-type zinc finger.  
Contains 1 Rho-GAP domain.

### Domain

The coiled coil region is indispensable for localization to the midbody during cytokinesis.

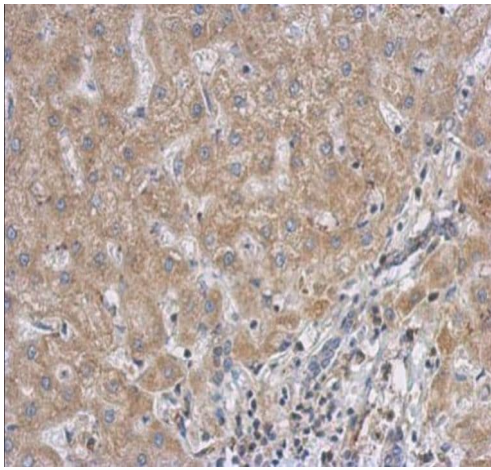
### Post-translational modifications

Phosphorylated at multiple sites in the midbody during cytokinesis. Phosphorylation by AURKB on Ser-387 at the midbody is, at least in part, responsible for exerting its latent GAP activity towards RhoA. Phosphorylation on multiple serine residues by PLK1 enhances its association with ECT2 and is critical for cleavage furrow formation.

### Cellular localization

Nucleus. Cytoplasm. Cytoplasm > cytoskeleton > spindle. Cytoplasmic vesicle > secretory vesicle > acrosome. Cleavage furrow. Midbody. Colocalizes with RND2 in Golgi-derived proacrosomal vesicles and the acrosome (By similarity). During interphase, localized to the nucleus and cytoplasm along with microtubules, in anaphase, is redistributed to the central spindle and, in telophase and cytokinesis, to the midbody. Colocalizes with RHOA at the myosin contractile ring during cytokinesis. Colocalizes with ECT2 to the mitotic spindles during anaphase/metaphase, the cleavage furrow during telophase and at the midbody at the end of cytokinesis. Colocalizes with Cdc42 to spindle microtubules from prometaphase to telophase.

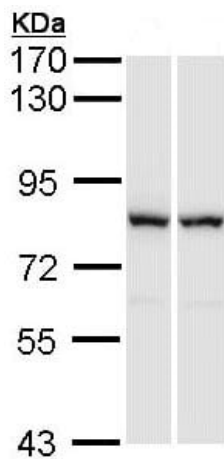
## Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RACGAP1/MGCRACGAP antibody (ab97315)

Immunohistochemical analysis of paraffin-embedded human hepatoma tissue staining RACGAP1 with ab97315 at 1/500 dilution.

Antigen Retrieval: EDTA based buffer, pH 8.0, 15min.



Western blot - Anti-RACGAP1/MGCRACGAP antibody (ab97315)

**All lanes :** Anti-RACGAP1/MGCRACGAP antibody (ab97315) at 1/1000 dilution

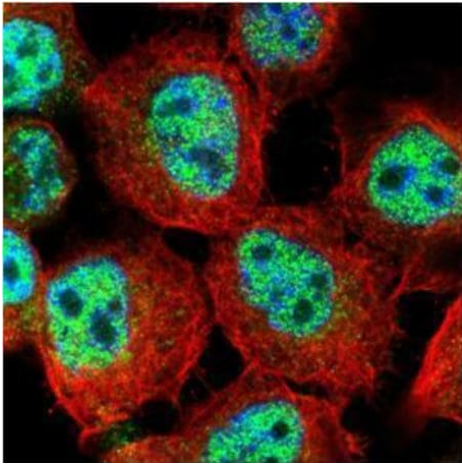
**Lane 1 :** A431 (human epidermoid carcinoma cell line) whole cell lysate

**Lane 2 :** Raji (human Burkitt's lymphoma cell line) whole cell lysate

Lysates/proteins at 30 µg per lane.

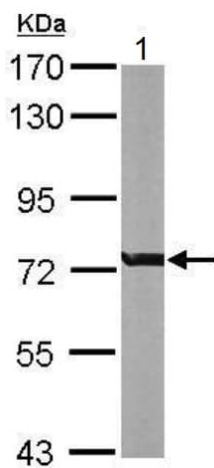
**Predicted band size:** 71 kDa

7.5% SDS-PAGE



Immunocytochemistry/ Immunofluorescence - Anti-RACGAP1/MGCRCAGAP antibody (ab97315)

Confocal immunofluorescence analysis of paraformaldehyde-fixed A431 (human epidermoid carcinoma cell line) whole cells labeling RACGAP1 (green) with ab97315 at 1/500 dilution. Alpha-tubulin filaments (red), at 1:2000 dilution.

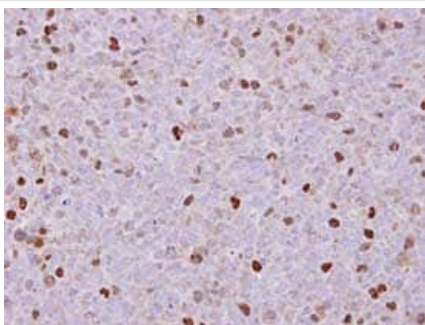


Western blot - Anti-RACGAP1/MGCRCAGAP antibody (ab97315)

Anti-RACGAP1/MGCRCAGAP antibody (ab97315) at 1/1000 dilution + Mouse heart tissue lysate at 50 µg

**Predicted band size: 71 kDa**

7.5% SDS PAGE



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RACGAP1/MGCRCAGAP antibody (ab97315)

Immunohistochemical analysis of paraffin-embedded H1299 (human non-small cell lung carcinoma cell line) xenograft tissue staining RACGAP1 with ab97315 at 1/500 dilution.

Antigen Retrieval: EDTA based buffer, pH 8.0, 15min.

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