# abcam

## Product datasheet

## Anti-RACGAP1/MGCRACGAP antibody ab97315

## 5 图像

#### 概述

产品名称 Anti-RACGAP1/MGCRACGAP抗体

描述 兔多克隆抗体to RACGAP1/MGCRACGAP

**宿主** Rabbit

经测试应用 适用于: WB, IHC-P, ICC/IF

种属反应性 与反应: Mouse, Human

免疫原 Recombinant fragment corresponding to Human RACGAP1/MGCRACGAP aa 1-172.

(AAH32754)

阳性对照 WB: A431 and Raji whole cell, mouse heart tissue lysate; IHC-P: Human hepatoma and H1299

xenograft tissue; IF: A431 whole cell.

常规说明

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.

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&As

性能

形式 Liquid

存放说明 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.

**存储溶液** pH: 7.00

Preservative: 0.01% Thimerosal (merthiolate)

Constituents: 1.21% Tris, 0.75% Glycine, 10% Glycerol (glycerin, glycerine)

纯**度** Immunogen affinity purified

**克隆** 多克隆

**同种型** IgG

应用

#### The Abpromise guarantee

#### Abpromise™承诺保证使用ab97315于以下的经测试应用

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB		1/500 - 1/3000. Predicted molecular weight: 71 kDa.
IHC-P		1/100 - 1/500.
ICC/IF		1/100 - 1/1000.

#### 靶标

#### 功能

Component of the centralspindlin complex that serves as a microtubule-dependent and Rhomediated 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.

#### 组织特异性

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.

#### 序列相似性

Contains 1 phorbol-ester/DAG-type zinc finger.

Contains 1 Rho-GAP domain.

#### 结构域

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

#### 翻译后修饰

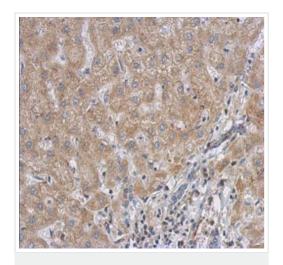
Phosphorylated at multiple sites in the midbody during cytokinesis. Phosphorylation by AURKB on Ser-387 at the midbody is, at least in part, responsible for exerting its latent GAP activity towards RhoA. Phosphorylation on multiple serine residues by PLK1 enhances its association with ECT2

and is critical for cleavage furrow formation.

## 细胞定位

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.

#### 图片

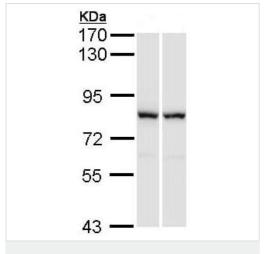


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-

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

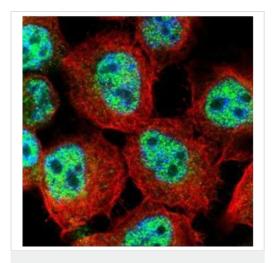
**Lane 1**: A431 (human epidermoid carcinoma cell line) whole cell lysate

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

Lysates/proteins at 30 µg per lane.

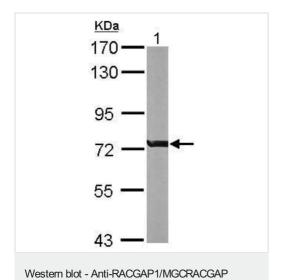
Predicted band size: 71 kDa

7.5% SDS-PAGE



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

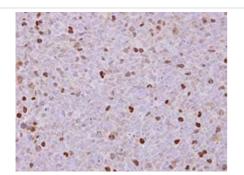
Confocal immunofluorescence analysis of paraformaldehyde-fixed A431 (human epidermoid carcinoma cell line) whole cells labeling RACGAP1 (green) with ab97315 at 1/500 dilution. Alphatubulin filaments (red), at 1:2000 dilution.



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

Predicted band size: 71 kDa

7.5% SDS PAGE



antibody (ab97315)

Immunohistochemistry (Formalin/PFA-fixed paraffin-

RACGAP1/MGCRACGAP antibody (ab97315)

embedded sections) - Anti-

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.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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