

### Anti-RanGAP1 antibody ab2081

[3 References](#) [2 图像](#)

#### 概述

产品名称	Anti-RanGAP1抗体
描述	山羊多克隆抗体to RanGAP1
宿主	Goat
特异性	There is a hypothetical protein called "similar to RANGAP1" (XP_139737.2) that is virtually identical.
经测试应用	适用于: WB, ICC/IF
种属反应性	与反应: Mouse, Human
免疫原	Synthetic peptide: ASEDIAKLAETLAK, corresponding to N terminal amino acids 2-15 of Human RanGAP1. <a href="#">Run BLAST with</a> <a href="#">Expasy</a> <a href="#">Run BLAST with</a> <a href="#">NCBI</a>
阳性对照	3T3 lysate.
常规说明	

Ran is a small signaling GTPase that is involved in nucleocytoplasmic transport. Two additional functions of animal Ran in the formation of spindle asters and the reassembly of the nuclear envelope in mitotic cells have been recently reported. In contrast to Ras or Rho, Ran is not associated with membranes. Instead, the spatial sequestering of its accessory proteins, the Ran GTPase-activating protein RanGAP 1 and the nucleotide exchange factor RCC1, appears to define the local concentration of RanGTP vs. RanGDP involved in signaling. Mammalian RanGAP 1 is bound to the nuclear pore by a mechanism involving the attachment of small ubiquitin-related modifier protein (SUMO) to its C terminus and the subsequent binding of the SUMOylated domain to the nucleoporin Nup358.

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
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存放说明	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
存储溶液	pH: 7.30 Preservative: 0.02% Sodium azide Constituents: Tris buffered saline, 0.5% BSA
纯度	Immunogen affinity purified
纯化说明	Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.
Primary antibody说明	Ran is a small signaling GTPase that is involved in nucleocytoplasmic transport. Two additional functions of animal Ran in the formation of spindle asters and the reassembly of the nuclear envelope in mitotic cells have been recently reported. In contrast to Ras or Rho, Ran is not associated with membranes. Instead, the spatial sequestering of its accessory proteins, the Ran GTPase-activating protein RanGAP 1 and the nucleotide exchange factor RCC1, appears to define the local concentration of RanGTP vs. RanGDP involved in signaling. Mammalian RanGAP 1 is bound to the nuclear pore by a mechanism involving the attachment of small ubiquitin-related modifier protein (SUMO) to its C terminus and the subsequent binding of the SUMOylated domain to the nucleoporin Nup358.
克隆	多克隆
同种型	IgG

应用

The Abpromise guarantee      **Abpromise™**承诺保证使用ab2081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		Use a concentration of 0.1 - 0.5 µg/ml. Detects a band of approximately 70 kDa. A 1 hour primary incubation is recommended for this product. Detects a band of approximately 70 kDa in human brain lysates and 3T3 lysates (predicted MW of 68kDa according to NP_002874).
ICC/IF		1/500.

靶标

功能	GTPase activator for the nuclear Ras-related regulatory protein Ran, converting it to the putatively inactive GDP-bound state.
组织特异性	Highly expressed in brain, thymus and testis.
序列相似性	Belongs to the RNA1 family. Contains 6 LRR (leucine-rich) repeats.
翻译后修饰	Phosphorylated occurs before nuclear envelope breakdown and continues throughout mitosis. Phosphorylated by the M-phase kinase cyclin B/Cdk1, in vitro. Differential timing of dephosphorylation occurs during phases of mitosis. The phosphorylated form remains associated

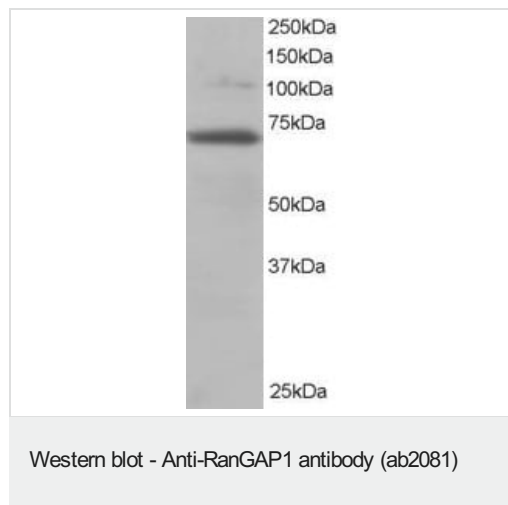
with RANBP2/NUP358 and the SUMO E2-conjugating enzyme, UBC9, on nuclear pore complex (NPC) disassembly and during mitosis.

Sumoylated with SUMO1. Sumoylation is necessary for targeting to the nuclear envelope (NE), and for association with mitotic spindles and kinetochores during mitosis. Also required for interaction with RANBP2 and is mediated by UBC9.

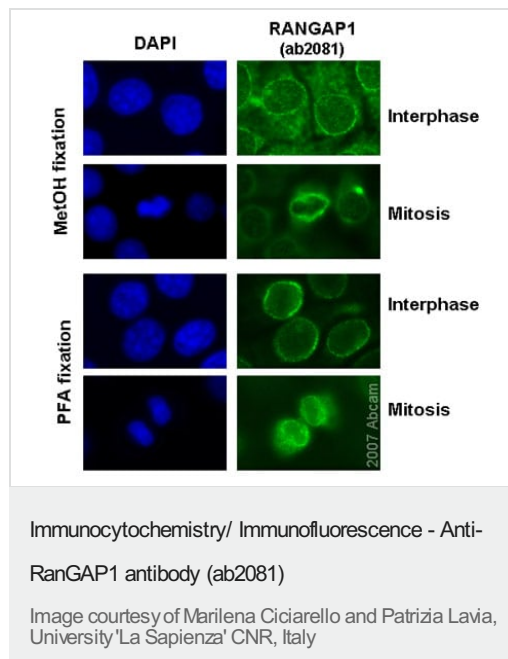
## 细胞定位

Cytoplasm. Nucleus membrane. Chromosome, centromere, kinetochore. Cytoplasm, cytoskeleton, spindle pole. Cytoplasmic during interphase. Targeted to the nuclear rim after sumoylation. During mitosis, associates with mitotic spindles. Association with kinetochores appears soon after nuclear envelope breakdown and persists until late anaphase. Mitotic location also requires sumoylation.

## 图片



ab2081 at a concentration of 0.2µg/ml staining approximately 70kda RanGAP1 in 3T3 whole cell lysate (RIPA buffer, 35µg total protein per lane) by Western blot (ECL). Primary incubation = 1 hour. ab2081 at a concentration of 0.2µg/ml staining approximately 70kda RanGAP1 in 3T3 whole cell lysate (RIPA buffer, 35µg total protein per lane) by Western blot (ECL). Primary incubation = 1 hour.



ab2081 (1/500) detecting RanGap1 in mitotic and interphase HeLa cells (green). Dapi was used as counterstain in order to highlight the nucleus (blue) and cells were fixed both in Methanol (-20 °C/ 6 mins, followed by 3 washes in PBS) or Paraformaldehyde (3,7% PFA /10 min at room temperature, 0,1% Triton/PBS 5 min, glycine 5 min, followed by 3 washes in PBS); This antibody also gave good results in NIH-3T3 cells under both the above mentioned fixation procedures (data not shown).

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

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