

## Datasheet for ABIN967831 anti-RAP2A antibody (AA 1-183)



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### Overview

Quantity:	50 µg
Target:	RAP2A
Binding Specificity:	AA 1-183
Reactivity:	Human, Mouse, Rat, Dog, Chicken, Frog
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This RAP2A antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), Immunoprecipitation (IP), Immunohistochemistry (Formalin-fixed Sections) (IHC (f))

### Product Details

Immunogen:	Human Rap2 aa. 1-183
Clone:	12-Rap2
Isotype:	IgG2a
Cross-Reactivity:	Chicken, Dog (Canine), Frog, Mouse (Murine), Rat (Rattus)
Characteristics:	<ol style="list-style-type: none"> <li>1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.</li> <li>2. Please refer to us for technical protocols.</li> <li>3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.</li> <li>4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.</li> </ol>

## Product Details

Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
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## Target Details

Target:	RAP2A
Alternative Name:	Rap2 ( <a href="#">RAP2A Products</a> )
Background:	<p>Rap2 is a member of the Ras superfamily of low molecular weight GTP/GDP binding proteins. The Rap proteins are 50% homologous in sequence to p21ras. Like Ras, the Rap proteins cycle between a GDP-bound inactive form and a GTP-bound active form. Conversion between these two forms is regulated by Rap-GTPase activating protein (Rap-GAP) and a Rap-GDP dissociation stimulator (GDS). Since Ras and Rap have the same amino acid sequence in their putative effector domain (aa. 32-40), it seems likely that they perform either similar or antagonistic functions. Rap2 proteins are about 60% identical to Rap1 proteins and Rap2A and Rap2B show 90% amino acid identity, differing mainly at the carboxy-terminus. Unlike Rap1, the Rap2 proteins cannot compete with Ras for interaction with Ras-GAP, nor are they substrates for PKA. It follows that the intrinsic GTPase activity of Rap2A is not stimulated by Ras-GAP, however a distinct activator (Rap-GAP) has been identified. Both Rap2 proteins show posttranslational modifications: Rap2B is geranylgeranylated and Rap2A is the first non-Ras member of the Ras superfamily observed to be farnesylated. This antibody is routinely tested by western blot analysis.</p>
Molecular Weight:	21 kDa

## Application Details

Comment:	Related Products: ABIN968533, ABIN967389
Restrictions:	For Research Use only

## Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which

## Handling

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should be handled by trained staff only.

Storage: -20 °C

Storage Comment: Store undiluted at -20° C.

## Publications

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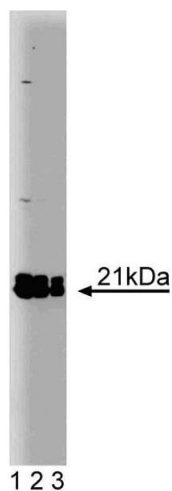
Product cited in: Ohba, Mochizuki, Matsuo, Yamashita, Nakaya, Hashimoto, Hamaguchi, Kurata, Nagashima, Matsuda: "Rap2 as a slowly responding molecular switch in the Rap1 signaling cascade." in: **Molecular and cellular biology**, Vol. 20, Issue 16, pp. 6074-83, (2000) ([PubMed](#)).

Reedquist, Bos: "Costimulation through CD28 suppresses T cell receptor-dependent activation of the Ras-like small GTPase Rap1 in human T lymphocytes." in: **The Journal of biological chemistry**, Vol. 273, Issue 9, pp. 4944-9, (1998) ([PubMed](#)).

Janoueix-Lerosey, Polakis, Tavitian, de Gunzburg: "Regulation of the GTPase activity of the ras-related rap2 protein." in: **Biochemical and biophysical research communications**, Vol. 189, Issue 1, pp. 455-64, (1992) ([PubMed](#)).

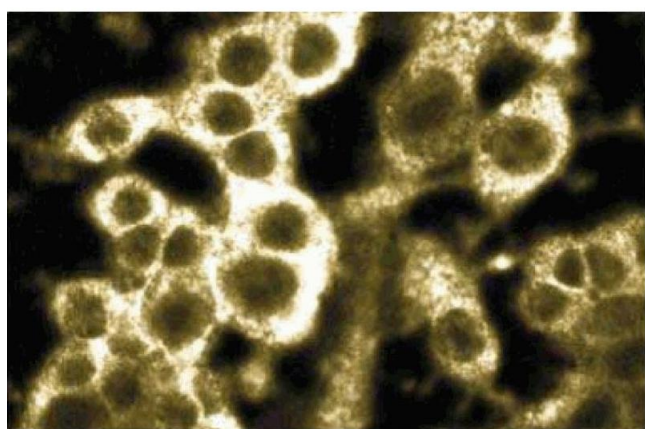
Ohmstede, Farrell, Reep, Clemetson, Lapetina: "RAP2B: a RAS-related GTP-binding protein from platelets." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 87, Issue 17, pp. 6527-31, (1990) ([PubMed](#)).

Pizon, Chardin, Lerosey, Olofsson, Tavitian: "Human cDNAs rap1 and rap2 homologous to the Drosophila gene Dras3 encode proteins closely related to ras in the 'effector' region." in: **Oncogene**, Vol. 3, Issue 2, pp. 201-4, (1988) ([PubMed](#)).



#### Western Blotting

**Image 1.** Western blot analysis of Rap2 on a A431 cell lysate. Lane 1: 1:2500, lane 2: 1:5000, lane 3: 1:10000 dilution of the anti- Rap2 antibody.



#### Immunofluorescence

**Image 2.** Immunofluorescence staining of mouse macrophages.