



Datasheet for ABIN968070  
**anti-ROCK2 antibody (AA 567-718)**



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## Overview

Quantity:	50 µg
Target:	ROCK2
Binding Specificity:	AA 567-718
Reactivity:	Human, Mouse, Rat, Dog
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This ROCK2 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunoprecipitation (IP), Immunofluorescence (IF)

## Product Details

Immunogen:	Rat ROKalpha aa. 567-718
Clone:	21-ROCK
Isotype:	IgG1
Cross-Reactivity:	Mouse (Murine), Dog (Canine), Human
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

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

## Target Details

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**Target:** ROCK2

**Alternative Name:** ROCK-II ([ROCK2 Products](#))

**Background:** Activity of the GTP-binding proteins is regulated by GAPs, that accelerate binding, and GTPases, that enhance the rate of GTP hydrolysis (Ras, Rho, cdc42Hs, and Rac). The isoforms of Rho, a small GTP-binding protein, regulate cellular processes such as the formation of the stress fibers, lamellipodia, and filopodia. ROKalpha (RhoA-binding kinase) is a Ser/Thr protein kinase that interacts with the GTP-binding form of RhoA. Like RhoA, ROKalpha localizes at the cellular margins and colocalizes with actin filaments. The ROKalpha gene encodes a protein of 1302 amino acids with homology to the human myotonic kinase. Although ROKalpha binds to GTP-RhoA, it is not yet clear whether this interaction induces the kinase activity of ROKalpha.  
Synonyms: ROKalpha

**Molecular Weight:** 180 kDa

**Pathways:** [Microtubule Dynamics](#), [WNT Signaling](#), [Tube Formation](#)

## Application Details

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**Restrictions:** For Research Use only

## Handling

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**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 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:

Begum, Sandu, Ito, Lohmann, Smolenski: "Active Rho kinase (ROK-alpha ) associates with insulin receptor substrate-1 and inhibits insulin signaling in vascular smooth muscle cells." in: **The Journal of biological chemistry**, Vol. 277, Issue 8, pp. 6214-22, (2002) ([PubMed](#)).

Wang, Eto, Steers, Somlyo, Somlyo: "RhoA-mediated Ca<sup>2+</sup> sensitization in erectile function." in: **The Journal of biological chemistry**, Vol. 277, Issue 34, pp. 30614-21, (2002) ([PubMed](#)).

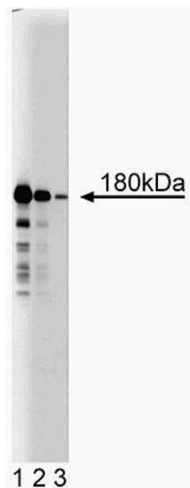
Adachi, Vita, Sannohe, Stafford, Alam, Kayaba, Chihara: "The functional role of rho and rho-associated coiled-coil forming protein kinase in eotaxin signaling of eosinophils." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 167, Issue 8, pp. 4609-15, (2001) ([PubMed](#)).

Sahai, Olson, Marshall: "Cross-talk between Ras and Rho signalling pathways in transformation favours proliferation and increased motility." in: **The EMBO journal**, Vol. 20, Issue 4, pp. 755-66, (2001) ([PubMed](#)).

Leung, Manser, Tan, Lim: "A novel serine/threonine kinase binding the Ras-related RhoA GTPase which translocates the kinase to peripheral membranes." in: **The Journal of biological chemistry**, Vol. 270, Issue 49, pp. 29051-4, (1996) ([PubMed](#)).

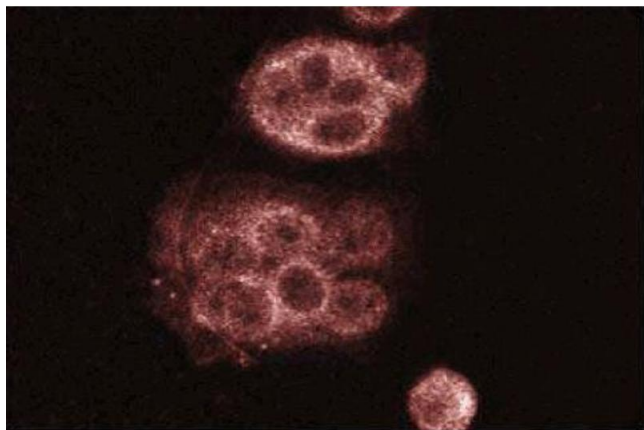
## Images

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### Western Blotting

**Image 1.** Western blot analysis of ROCK-II on RSV-3T3 lysate. Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of ROCK-II.



**Image 2.** MCF7