

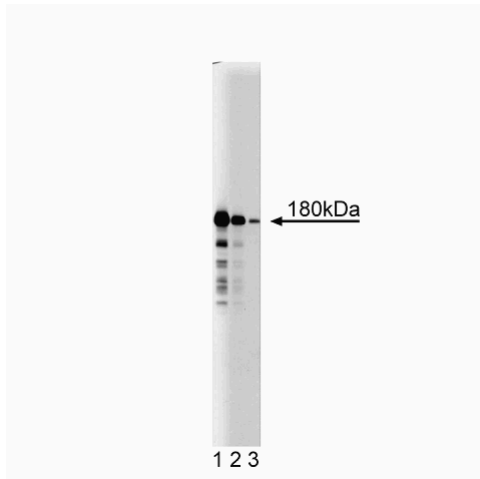
Technical Data Sheet

Purified Mouse Anti-ROCK-II**Product Information**

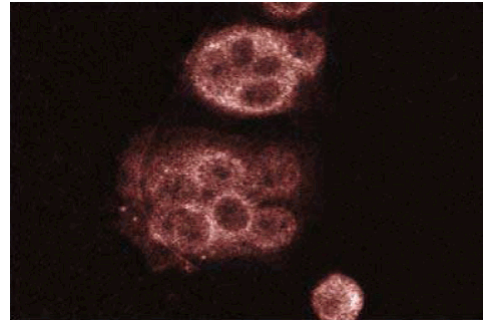
Material Number:	610623
Alternate Name:	ROK α
Size:	50 μ g
Concentration:	250 μ g/ml
Clone:	21/ROCK-II
Immunogen:	Rat ROK α aa. 567-718
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Mouse Tested in Development: Dog, Human, Rat
Target MW:	180 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and $\leq 0.09\%$ sodium azide.

Description

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. ROK α (**RhoA-binding kinase**) is a Ser/Thr protein kinase that interacts with the GTP-binding form of RhoA. Like RhoA, ROK α localizes at the cellular margins and colocalizes with actin filaments. The *ROK α* gene encodes a protein of 1302 amino acids with homology to the human myotonic kinase. Although ROK α binds to GTP-RhoA, it is not yet clear whether this interaction induces the kinase activity of ROK α .



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.



MCF7

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at -20°C .

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Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development
Immunohistochemistry	Tested During Development
Immunoprecipitation	Tested During Development

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.
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.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

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Begum N, Sandu OA, Ito M, Lohmann SM, Smolenski A. Active Rho kinase (ROK-alpha) associates with insulin receptor substrate-1 and inhibits insulin signaling in vascular smooth muscle cells. *J Biol Chem.* 2002; 277(8):6214-6222.(Clone-specific: Immunoprecipitation, Western blot)

Leung T, Manser E, Tan L, Lim L. A novel serine/threonine kinase binding the Ras-related RhoA GTPase which translocates the kinase to peripheral membranes. *J Biol Chem.* 1995; 270(49):29051-29054.(Biology)

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Wang H, Eto M, Steers WD, Somlyo AP, Somlyo AV. RhoA-mediated Ca²⁺ sensitization in erectile function. *J Biol Chem.* 2002; 277(37):30614-30621. (Clone-specific: Western blot)