



## Product Information Sheet

### **Polyclonal Anti- Rho-associated, coiled-coil-containing protein kinase 2, *ROCK2* (Magnetic Bead Conjugate)**

<b>Catalogue No.</b> PA1242-M	<b>Immunogen</b>
<b>Lot No.</b> 09A01	A synthetic peptide corresponding to a sequence at the N-terminal of human ROCK2, identical to the related rat and mouse sequence.
<b>Ig type:</b> rabbit IgG1	<b>Purification</b>
<b>Size:</b> 100µg/Vial	Immunogen affinity purified
<b>Specificity</b>	<b>Contents</b>
Human, rat, mouse.	Each vial contains 1mg/ml Magnetic Bead in PBS, pH 7.2, 0.05mg NaN <sub>3</sub> .
No cross reactivity with other proteins.	<b>Storage</b>
	Store at 4°C for frequent use.
<b>Recommended application</b>	<b>Description:</b>
<i>Immunoprecipitation (IP)</i>	This Antagene antibody is immobilized by the covalent reaction of hydrazinonicotinamide-modified antibody with formylbenzamide-modified magnetic beads. It is useful for immunoprecipitation

#### **BACKGROUND**

Rho-associated kinase (ROCK), including the ROCK-I and ROCK-II isoforms, is a protein kinase involved in signaling from Rho to actin cytoskeleton. Serine/threonine kinase ROCK II/Rho kinase, which is an isozyme of ROCK I, is one of the targets for the small GTPase Rho. ROCK II regulates the formation of actin stress fibers and focal adhesions, cytokinesis, smooth muscle contraction, and the activation of c-fos serum response element. Sequencing analysis has shown that human ROCK II contains 1388 amino acid residues with a calculated molecular mass of approximately 161 kDa. Fluorescence in situ hybridization analysis showed that the human ROCK II gene is located on chromosome 2p24.<sup>1</sup> Thumkeo et al. (2003) concluded that ROCK-II is essential in inhibiting blood coagulation and maintaining blood flow in the endothelium-free labyrinth layer and that loss of ROCK-II leads to thrombus formation, placental dysfunction, intrauterine growth retardation, and fetal death.<sup>2</sup>

#### **REFERENCE**

1. Takahashi, N.; Tuiki, H.; Saya, H.; Kaibuchi, K. : Localization of the gene coding for ROCK II/Rho kinase on human chromosome 2p24. *Genomics* 55: 235-237, 1999.
2. Thumkeo, D.; Keel, J.; Ishizaki, T.; Hirose, M.; Nonomura, K.; Oshima, H.; Oshima, M.; Taketo, M. M.; Narumiya, S. : Targeted disruption of the mouse Rho-associated kinase 2 gene results in intrauterine growth retardation and fetal death. *Molec. Cell. Biol.* 23: 5043-5055, 2003.

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