

## Basic Information

<b>Product Name</b>	Anti-ROCK2 Antibody	
<b>Gene Name</b>	ROCK2	
<b>Source</b>	Rabbit	
<b>Clonality</b>	Polyclonal	
<b>Isotype</b>	IgG	
<b>Species Reactivity</b>	human, mouse, rat	
<b>Tested Application</b>	WB, FCM, ELISA	
<b>Contents</b>	500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.	
<b>Immunogen</b>	E.coli-derived human ROCK2 recombinant protein (Position: R908-K1386).	
<b>Concentration</b>	500 ug/ml	
<b>Purification</b>	Immunogen affinity purified.	
<b>Observed MW</b>	161 kDa	
<b>Dilution Ratios</b>	Western blot (WB):	1:500-2000
	Flow Cytometry (Fixed):	1:50-200
	Enzyme linked immunosorbent assay (ELISA):	1:100-1000

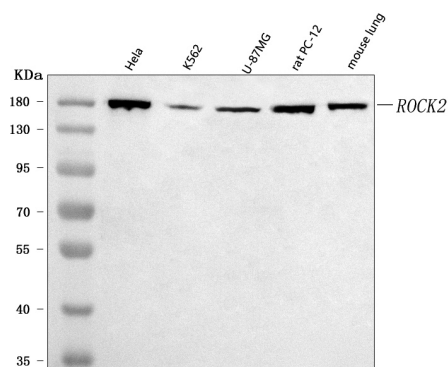
## Storage

12 months from date of receipt, -20°C as supplied.

## Background Information

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. Thumkeo et al. 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.

## Selected Validation Data



Western blot analysis of anti-ROCK2 antibody (A01023-2). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human Hela whole cell lysates,

Lane 2: human K562 whole cell lysates,

Lane 3: human U-87MG whole cell lysates,

Lane 4: rat PC-12 whole cell lysates,

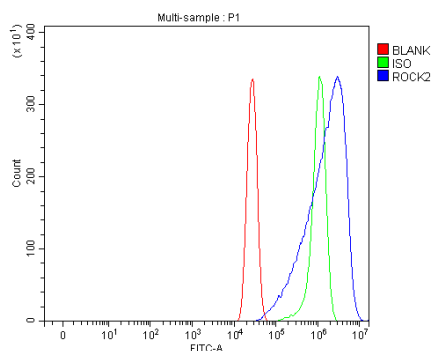
Lane 5: mouse lung tissue lysates.

After electrophoresis, proteins were transferred to a membrane.

Then the membrane was incubated with rabbit anti-ROCK2 antigen affinity purified polyclonal antibody (A01023-2) and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054).

The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for ROCK2 at

approximately 180 kDa. The expected band size for ROCK2 is at 161 kDa.



Flow Cytometry analysis of A431 cells using anti-ROCK2 antibody (A01023-2).

Overlay histogram showing A431 cells stained with A01023-2 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer.

The cells were blocked with 10% normal goat serum. And then

incubated with rabbit anti-ROCK2 Antibody (A01023-2) at 1:100

dilution for 30 min at 20°C. Fluoro488 conjugated goat anti-rabbit

IgG (BA1127) was used as secondary antibody at 1:100 dilution for

30 minutes at 20°C. Isotype control antibody (Green line) was rabbit

IgG at 1:100 dilution used under the same conditions. Unlabelled

sample without incubation with primary antibody and secondary

antibody (Red line) was used as a blank control.