abcam

# Product datasheet

# Anti-ROCK2 antibody ab56661

5 References 4 Images

## Overview

| | |
|---|---|
| **Product name** | Anti-ROCK2 antibody |
| **Description** | Mouse monoclonal to ROCK2 |
| **Host species** | Mouse |
| **Tested applications** | **Suitable for:** Flow Cyt, WB, IHC-P, ICC/IF, IP |
| **Species reactivity** | **Reacts with:** Human |
| **Immunogen** | Recombinant fragment corresponding to Human ROCK2 aa 1279-1388. |

## Properties

| | |
|---|---|
| **Form** | Liquid |
| **Storage instructions** | Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles. |
| **Storage buffer** | Preservative: None<br>PBS, pH 7.2 |
| **Purity** | Protein G purified |
| **Clonality** | Monoclonal |
| **Isotype** | IgG2b |
| **Light chain type** | kappa |

## Applications

Our Abpromise guarantee covers the use of **ab56661** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| Application | Abreviews | Notes |
|---|---|---|
| Flow Cyt | | Use 1µg for $10^6$ cells.<br>ab170192 - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody. |
| WB | | Use a concentration of 1 - 5 µg/ml. Predicted molecular weight: 161 kDa. |

| Application | Abreviews | Notes |
|---|---|---|
| IHC-P | | Use a concentration of 5 µg/ml. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. |
| ICC/IF | | Use a concentration of 5 µg/ml. |
| IP | | Use at an assay dependent concentration. PubMed: 21147781 |

## Target

**Function**

Regulates the assembly of the actin cytoskeleton. Promotes formation of stress fibers and of focal adhesion complexes. Plays a role in smooth muscle contraction.

**Sequence similarities**

Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family.
Contains 1 AGC-kinase C-terminal domain.
Contains 1 PH domain.
Contains 1 phorbol-ester/DAG-type zinc finger.
Contains 1 protein kinase domain.
Contains 1 REM (Hr1) repeat.

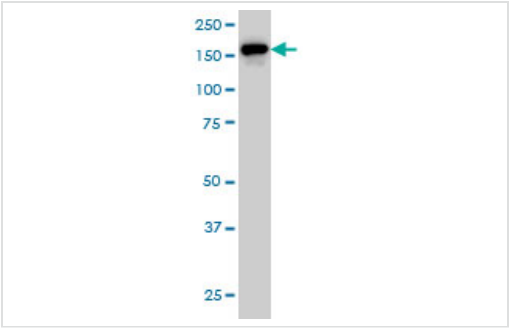
**Post-translational modifications**

Phosphorylated upon DNA damage, probably by ATM or ATR.

**Cellular localization**

Cytoplasm. Cell membrane. Cytoplasmic, and associated with actin microfilaments and the plasma membrane.

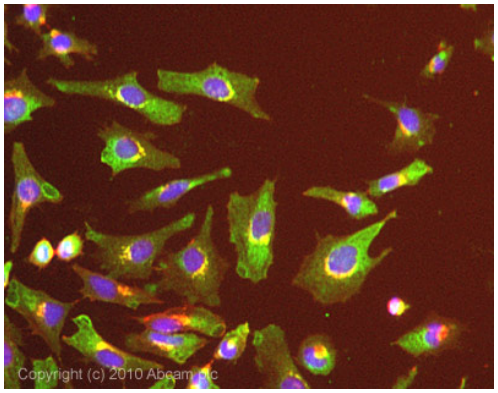
## Images




Western blot - Anti-ROCK2 antibody (ab56661)

ROCK2 antibody (ab56661) at 1ug/lane +

HeLa cell lysate at 25ug/lane.



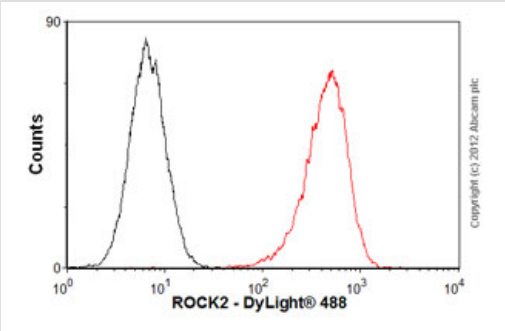

Immunocytochemistry/ Immunofluorescence - Anti-ROCK2 antibody (ab56661)

ICC/IF image of ab56661 stained HeLa cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab56661, 5µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-mouse IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ROCK2 antibody (ab56661)

IHC image of ab56661 staining in human normal liver formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with EDTA (pH9, epitope retrieval solution 2) for 20 mins. The section was then incubated with ab56661, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.




Flow Cytometry - Anti-ROCK2 antibody (ab56661)

Overlay histogram showing HeLa cells stained with ab56661 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab56661, 1µg/1x$10^6$ cells) for 30 min at 22ºC. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22ºC. Isotype control antibody (black line) was mouse IgG2b [PLPV219] (ab91366, 2µg/1x$10^6$ cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in HeLa cells fixed with 4% paraformaldehyde (10 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.



## Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

## Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors