

Recombinant human ROCK1 protein ab51415

画像数 4

製品の詳細

| | |
|-------------|--|
| 製品名 | Recombinant human ROCK1 protein |
| 生理活性 | Activity is lot-specific. |
| 精製度 | > 90 % Densitometry. Affinity purified. |
| 発現系 | Baculovirus infected Sf9 cells |
| タンパク質長 | Protein fragment |
| Animal free | No |
| 由来 | Recombinant |
| 生物種 | Human |
| 領域 | 17 to 535 |
| タグ | GST tag N-Terminus |

特性

Our **Abpromise guarantee** covers the use of **ab51415** in the following tested applications.

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

| | |
|----------|---|
| アプリケーション | Functional Studies SDS-PAGE |
| 製品の状態 | Liquid |
| 備考 | ab204880 (RPS6 peptide) can be utilized as a substrate for assessing kinase activity |

前処理および保存

| | |
|------------|--|
| 保存方法および安定性 | Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles. pH: 7.50 Constituents: 0.87% Sodium chloride, 25% Glycerol (glycerin, glycerine), 0.00292% EDTA, 0.79% Tris HCl, 0.00385% DTT, 0.00174% PMSF, 0.0038% EGTA This product is an active protein and may elicit a biological response in vivo, handle with caution. |
|------------|--|

関連情報

機能

Protein kinase which is a key regulator of actin cytoskeleton and cell polarity. Involved in regulation of smooth muscle contraction, actin cytoskeleton organization, stress fiber and focal adhesion formation, neurite retraction, cell adhesion and motility via phosphorylation of DAPK3, GFAP, LIMK1, LIMK2, MYL9/MLC2, PFN1 and PPP1R12A. Phosphorylates FHOD1 and acts synergistically with it to promote SRC-dependent non-apoptotic plasma membrane blebbing. Phosphorylates JIP3 and regulates the recruitment of JNK to JIP3 upon UVB-induced stress. Acts as a suppressor of inflammatory cell migration by regulating PTEN phosphorylation and stability. Acts as a negative regulator of VEGF-induced angiogenic endothelial cell activation. Required for centrosome positioning and centrosome-dependent exit from mitosis. Plays a role in terminal erythroid differentiation. May regulate closure of the eyelids and ventral body wall by inducing the assembly of actomyosin bundles. Promotes keratinocyte terminal differentiation. Involved in osteoblast compaction through the fibronectin fibrillogenesis cell-mediated matrix assembly process, essential for osteoblast mineralization.

組織特異性

Detected in blood platelets.

配列類似性

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.

ドメイン

The C-terminal auto-inhibitory domain interferes with kinase activity. RHOA binding leads to a conformation change and activation of the kinase. Truncated ROCK1 is constitutively activated.

翻訳後修飾

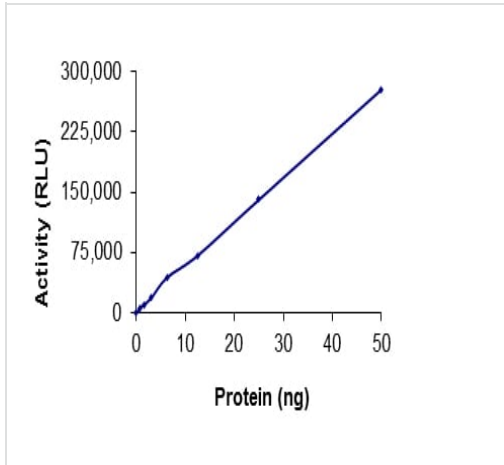
Autophosphorylated on serine and threonine residues.

Cleaved by caspase-3 during apoptosis. This leads to constitutive activation of the kinase and membrane blebbing.

細胞内局在

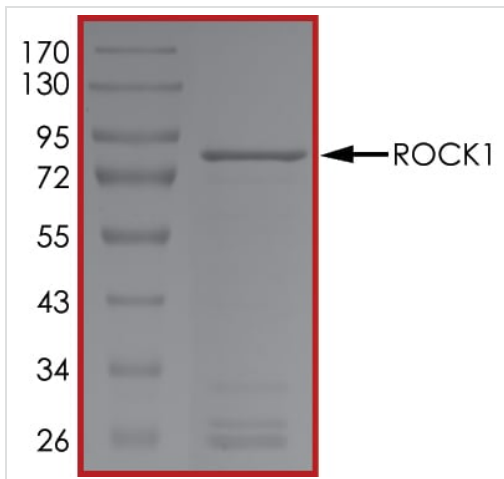
Cytoplasm. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriole. Golgi apparatus membrane. Cell projection, bleb. Cytoplasm, cytoskeleton. Cell membrane. Cell projection, lamellipodium. Cell projection, ruffle. Associated with the mother centriole and an intercentriolar linker. Colocalizes with ITGB1BP1 and ITGB1 at the cell membrane predominantly in lamellipodia and membrane ruffles, but also in retraction fibers. Localizes at the cell membrane in an ITGB1BP1-dependent manner (By similarity). A small proportion is associated with Golgi membranes.

画像



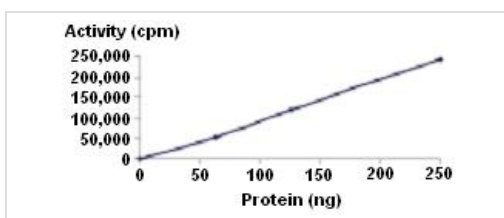
The specific activity of ROCK1 (ab51415) was determined to be 65 nmol/min/mg as per activity assay protocol and was equivalent to 49 nmol/min/mg as per radiometric assay

Functional Studies - Recombinant human ROCK1 protein (ab51415)



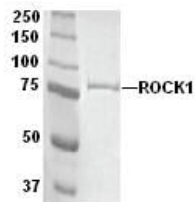
SDS PAGE analysis of ab51415

SDS-PAGE - Recombinant human ROCK1 protein (ab51415)



Kinase activity assay - specific activity 51 nmol/min/mg.

Functional Studies - Recombinant human ROCK1 protein (ab51415)



Recombinant human ROCK1 protein (tagged)

Molecular weight 85 kDa

SDS-PAGE - Recombinant human ROCK1 protein
(ab51415)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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.co.jp/abpromise> or contact our technical team.

Terms and conditions

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