

Datasheet for ABIN3095084

ROCK1 Protein (AA 2-1354) (His tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	ROCK1
Protein Characteristics:	AA 2-1354
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This ROCK1 protein is labelled with His tag.
Application:	Western Blotting (WB), ELISA, SDS-PAGE (SDS), Crystallization (Crys)

Product Details

Sequence:	STGDSFETRF EKMDNLLRDP KSEVNSDCLL DGLDALVYDL DFPALRKNKN IDNFLSRYKD TINKIRDLRM KAEDYEVVKV IGRGAFGEVQ LVRHKSTRKV YAMKLLSKFE MIKRSDSAFF WEERDIMAFA NSPWVVQLFY AFQDDRYLYM VMEYMPGGDL VNLMSNYDVP EKWARFYTAE VVLALDAIHS MGFIHRDVKP DNMLLDKSGH LKLADFGTCM KMNKEGMVRC DTAVGTPDYI SPEVLKSQGG DGYYGRECDW WSVGVFLEYEM LVGDTPFYAD SLVGTYSKIM NHKNSLTFFD DNDISKEAKN LICAFLTDRE VRLGRNGVEE IKRHLFFKND QWAWETLRDT VAPVVPDLSS DIDTSNFDDL EEDKGEEETF PIPKAFVGNQ LPFVGFTYYS NRRYLSSANP NDNRTSSNAD KSLQESLQKT IYKLEEQHLN EMQLKDEMEQ KCRTSNIKLD KIMKELDEEG NQRRNLESTV SQIEKEKMLL QHRINEYQRK AEQENEKRRN VENEVSTLKD QLEDLKKVSQ NSQLANEKLS QLQKQLEEAN DLLRTESDTA VRLRKSHTM SKSISQLESL NRELQERNRI LENSQSQTDK DYYQLQAILE AERRDRGHDS EMIGDLQARI TSLQEEVKHL KHNLEKVEGE RKEAQDMLNH SEKEKNNLEI DLNYKLKSLQ QRLEQEVNEH KVTKARLTDK HQSIEEAKSV AMCEMEKKLK
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EEREAREKAE NRVVQIEKQC SMLDVDLKQS QQKLEHLTGN KERMEDEVKN LTLQLEQESN
KRLLLQNELK TQAFADNLK GLEKQMKQEI NTLLEAKRLL EFELAQLTKQ YRGNEGQMRE
LQDQLEAEQY FSTLYKTQVK ELKEEIEEKN RENLKKIQEL QNEKETLATQ LDLAETKAES
EQLARGLLEE QYFELTQESK KAASRNQEI TDKDHTVSRL EEANSMLTKD IEILRRENEE
LTEKMKKAAE EYKLEKEEEI SNLKAAFEKN INTERTLKTQ AVNKLAEIMN RKDFKIDRKK
ANTQDLRKKE KENRKLQLEL NQEREKFNQM VVKHQKELND MQAQLVEECA HRNELQMQLA
SKESDIEQLR AKLLDLSDEST SVASFPSADE TDGNLPESRI EGWLSVPNRG NIKRYGWKKQ
YVVVSSKKIL FYNDEQDKEQ SNPSMVLDD KLFHVRPVTQ GDVYRAETEE IPKIFQILYA
NEGECRKDVE MEPVQQAekt NFQNHKGHEF IPTLYHFAN CDACAKPLWH VFKPPPAALEC
RRCHVKCHRD HLDKKEDLIC PCKVSYDVTS ARDMLLLACS QDEQKKWVTH LVKKIPKNPP
SGFVRASPRT LSTRSTANQS FRKVVKNTSG KTS

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Human ROCK1 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the ExPASy's protParam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

Product Details

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.
2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

Purity: >95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Sterility: 0.22 µm filtered

Endotoxin Level: Protein is endotoxin free.

Grade: Crystallography grade

Target Details

Target: ROCK1

Alternative Name: ROCK1 ([ROCK1 Products](#))

Background: 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. {ECO:0000269|PubMed:10436159, ECO:0000269|PubMed:10652353, ECO:0000269|PubMed:11018042, ECO:0000269|PubMed:11283607, ECO:0000269|PubMed:17158456, ECO:0000269|PubMed:18573880, ECO:0000269|PubMed:18694941, ECO:0000269|PubMed:19036714, ECO:0000269|PubMed:19131646, ECO:0000269|PubMed:19181962, ECO:0000269|PubMed:19997641, ECO:0000269|PubMed:21072057, ECO:0000269|PubMed:8617235, ECO:0000269|PubMed:9722579}.

Target Details

Molecular Weight:	159.0 kDa Including tag.
UniProt:	Q13464
Pathways:	Microtubule Dynamics , WNT Signaling , M Phase , Maintenance of Protein Location , Signaling Events mediated by VEGFR1 and VEGFR2 , Thromboxane A2 Receptor Signaling

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Comment:	In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process