

Datasheet for ABIN3134644

ROCK2 Protein (AA 1-1388) (His tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	ROCK2
Protein Characteristics:	AA 1-1388
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This ROCK2 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	MSRPPPTGKM PGAPEAAPGD GAGAGRQRKL EALIRDPRSP INVESLLDGL NSLVLDLDFP ALRKNKNIDN FLNRYEKIVK KIRGLQMKA E DYDVVKVIGR GAFGEVQLVR HKASQKVYAM KLLSKFEMIK RSDSAFFWEE RDIMAFANSP WVVQLFCAFQ DDRYLYMVME YMPGGDLVNL MSNYDVPEKW AKFYTAEVVL ALDAIHSMGL IHRDVKPDNM LLDKHGHLKL ADFGTCKMKMD ETGMVHCDTA VGTPDYISPE VLKSQGGDGY YGRECDWWSV GVFLFEMLVG DTPFYADSLV GTYSKIMDHK NSLCFPEDTE ISKHAKNLIC AFLTDREVRL GRNGVEEIKQ HPFFKNDQWN WDNIRETAAP VPELSSDID SSNFDDIEDD KGDVETFPPI KAFVGNQLPF IGFTYFRENL LLSDSPPCRE NDAIQTRKSE ESQEIQKKLY ALEEHLSSSEV QAKEELEQKC KSINTRLEKT AKELEEEITL RKSVESTLRQ LEREKALLQH KNAEYQRKAD HEADKKRNLE NDVNSLKDQL EDLKKRNQSS QISTEKNVNL QKQLDEANAL LRTESDTAAR LRKTQAESSK QIQQLSNNR DLQDKNCLLE TAKLKEKEF INLQSALESE RDRRTHGSEI INDLQGRISG LEEDLKTGKA LLAKVELEKR QLQEKLTDLE KEKSNMEIDM TYQLKVIQQS LEQEEAEHKT TKARLADKNK
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IYESIEEAKS EAMKEMEKKL LEERSLKQKV ENLLLEAEKR CSILDCDLKQ SQQKLNELLK
QKDVLNEDVR NLTLEIEQET QKRCLMQNDL KMQTQQVNTL KMSEKQIKQE NNHLMEMKMN
LEKQNTLRLK ERQDADGQMK ELQDQLEAEQ YFSTLYKTQV RELKEENEK TKLCKELQQK
KQDLQDERDS LAAQLEITLT KADSEQLARS IAEEQYSDLE KEKIMKELEI KEMMARHKQE
LTEKDTTAS LEETNRTLTS DVANLANEKE ELNNKLKDSQ EQLSKLKDEE MSAAAIKAQF
EKQLLNERTL KTQAVNKLAE IMNRKEPVKR GSDDTVRRKE KENRKLHMEK KSEREKLTTQ
MIKYQKELNE MQAQIAEESQ IRIELQMTLD SKDSDIEQLR SQLQALHIGM DSSSIGSGPG
DAEPDDGFPE SRLEGWLSLP VRNNTKKFGW VKKYVIVSSK KILFYDSEQD KEQSNPYMVL
DIDKLFHVRP VTQTDVYRAD AKEIPRIFI LYANEGESKK EPEFPVEPVG EKSNIYCHKG
HEFIPTLYHF PTNCEACMKP LWHMFKPPPA LECRRCHIKC HKDHMDKKEE IAPCKVYYD
ISSAKNLLLL ANSTEEQQKW VSRLVKKIPK KPPAPDPFAR SSPRTSMKIQ QNQSIRRPSP
QLAPNKPS

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.
- Mouse Rock2 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.

Product Details

Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: <ol style="list-style-type: none">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:	ROCK2
Alternative Name:	Rock2 (ROCK2 Products)
Background:	<p>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 ADD1, BRCA2, CNN1, EZR, DPYSL2, EP300, MSN, MYL9/MLC2, NPM1, RDX, PPP1R12A and VIM. Phosphorylates SORL1 and IRF4. Acts as a negative regulator of VEGF-induced angiogenic endothelial cell activation. Positively regulates the activation of p42/MAPK1-p44/MAPK3 and of p90RSK/RPS6KA1 during myogenic differentiation. Plays an important role in the timely initiation of centrosome duplication. Inhibits keratinocyte terminal differentiation. May regulate closure of the eyelids and ventral body wall through organization of actomyosin bundles. Plays a critical role in the regulation of spine and synaptic properties in the hippocampus. Plays a role in placental homeostasis during the perinatal period. Plays an important role in generating the circadian rhythm of the aortic myofilament Ca(2+) sensitivity and vascular contractility by modulating the myosin light chain phosphorylation. {ECO:0000269 PubMed:12832488, ECO:0000269 PubMed:18718479, ECO:0000269 PubMed:19181962, ECO:0000269 PubMed:20697158, ECO:0000269 PubMed:23172836}.</p>
Molecular Weight:	161.5 kDa Including tag.
UniProt:	P70336
Pathways:	Microtubule Dynamics , WNT Signaling , Tube Formation

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:	Protein has not been tested for activity yet. 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)

Images



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