

Datasheet for ABIN3095100

ROCK2 Protein (AA 1-1388) (Strep Tag)



[Go to Product page](#)

Overview

Quantity:	250 µg
Target:	ROCK2
Protein Characteristics:	AA 1-1388
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ROCK2 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Brand:	AliCE®
Sequence:	<p>MSRPPPTGKM PGAPETAPGD GAGASRQRKL EALIRDPRSP INVESLLDGL NSLVLDLDFP</p> <p>ALRKNKNIDN FLNRYEKIVK KIRGLQMKA E DYDVVKVIGR GAFGEVQLVR HKASQKVYAM</p> <p>KLLSKFEMIK RSDSAFFWEE RDIMAFANSP WVVQLFYAFQ DDRYLYMVME YMPGGDLVNL</p> <p>MSNYDVPEKW AKFYTAEVVL ALDAIHSMGL IHRDVKPDNM LLDKHGHLKL ADFGTCKMMD</p> <p>ETGMVHCDTA VGTPDYISPE VLKSQGGDGF YGRECDWWSV GVFLYEMLVG DTPFYADSLV</p> <p>GTYSKIMDHK NSLCFPEDAE ISKHAKNLIC AFLTDREVRL GRNGVEEIRQ HPFFKNDQWH</p> <p>WDNIRETAAP VPELSSDID SSNFDDIEDD KGDVETFPPI KAFVGNQLPF IGFTYYRENL</p> <p>LLSDSPSCRE TDSIQSRKNE ESQEIQKKLY TLEEHLNEM QAKEEELEQKC KSVNTRLEKT</p> <p>AKELEEEITL RKSVESALRQ LEREKALLQH KNAEYQRKAD HEADKKRNLE NDVNSLKDQL</p> <p>EDLKKRNQNS QISTEKNVQL QRQLDETNAL LRTESDTAAR LRKTQAESSK QIQQLESNNR</p> <p>DLQDKNCLLE TAKLKEKEF INLQSALESE RDRRTHGSEI INDLQGRICG LEEDLKNGKI</p>

LLAKVELEKR QLQERFTDLE KEKSNMEIDM TYQLKVIQQS LEQEEAEHKA TKARLADKNK
IYESIEEAKS EAMKEMEKKL LEERTLKQKV ENLLLEAEKR CSLLDCLDKQ SQQKINELLK
QKDVNLNEDVR NLTLKIEQET QKRCLTQNDL KMQTQQVNTL KMSEKQLKQE NNHLMEMKMN
LEKQNAELRK ERQDADGQMK ELQDQLEAEQ YFSTLYKTQV RELKEECEK TKLGKELQQK
KQELQDERDS LAAQLEITLT KADSEQLARS IAEEQYSDLE KEKIMKELEI KEMMARHKQE
LTEKDATIAS LEETNRTLTS DVANLANEKE ELNNKLKDVQ EQLSRLKDEE ISAAAIIKAQF
EKQLLTERTL KTQAVNKLAE IMNRKEPVKR GNDTDVRRKE KENRKLHMEI KSEREKLTQQ
MIKYQKELNE MQAQIAEESQ IRIELQMTLD SKDSDIEQLR SQLQALHIGL DSSSIGSGPG
DAEADDGFPE SRLEGWLSLP VRNNTKKFGW VKKYVIVSSK KILFYDSEQD KEQSNPYMVL
DIDKLFHVRP VTQTDVYRAD AKEIPRIFI LYANEGESKK EQEFPVEPVG EKSNIYCHKG
HEFIPTLYHF PTNCEACMKP LWHMFKPPPA LECRRCHIKC HKDHMDKKEE IAPCKVYYD
ISTAKNLLLL ANSTEEQQKW VSRLVKKIPK KPPAPDPFAR SSPRTSMKIQ QNQSIRRPSP
QLAPNKPS

Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.

Characteristics:

Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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 try to ensure that you receive soluble 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.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the

Product Details

mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	ROCK2
Alternative Name:	ROCK2 (ROCK2 Products)
Background:	<p>Rho-associated protein kinase 2 (EC 2.7.11.1) (Rho kinase 2) (Rho-associated, coiled-coil-containing protein kinase 2) (Rho-associated, coiled-coil-containing protein kinase II) (ROCK-II) (p164 ROCK-2),FUNCTION: 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 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:10579722, ECO:0000269 PubMed:15699075, ECO:0000269 PubMed:16574662, ECO:0000269 PubMed:17015463,</p>

Target Details

	ECO:0000269 PubMed:19131646, ECO:0000269 PubMed:19997641, ECO:0000269 PubMed:21084279, ECO:0000269 PubMed:21147781}.
Molecular Weight:	160.9 kDa
UniProt:	O75116
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:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.</p> <p>During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!</p>
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol Might differ depending on protein.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months