

Datasheet for ABIN7555271

## ROCK2 Protein (AA 1-1388) (His tag)



[Go to Product page](#)

### Overview

|                               |                                              |
|-------------------------------|----------------------------------------------|
| Quantity:                     | 1 mg                                         |
| Target:                       | ROCK2                                        |
| Protein Characteristics:      | AA 1-1388                                    |
| Origin:                       | Human                                        |
| Source:                       | HEK-293 Cells                                |
| Protein Type:                 | Recombinant                                  |
| Purification tag / Conjugate: | This ROCK2 protein is labelled with His tag. |

### Product Details

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| Purpose:  | Custom-made recombinant ROCK2 Protein expressed in mammalian cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 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 ADFGTCKMKMD</p> <p>ETGMVHCDTA VGTPDYISPE VLKSQGGDGF YGRECDWWSV GVFLYEMLVG DTPFYADSLV</p> <p>GTYSKIMDHK NSLCFPEDAE ISKHAKNLIC AFLTDREVRL GRNGVEEIRQ HPFFKNDQWH</p> <p>WDNIRETAAP VPELSSDID SSNFDDIEDD KGDVETFFIP KAFVGNQLPF IGFTYYRENL</p> <p>LLSDSPSCRE TDSIQSRKNE ESQEIQKKLY TLEEHLNEM QAKEELEQKC KSVNTRLEKT</p> <p>AKELEEEITL RKSVESALRQ LEREKALLQH KNAEYQRKAD HEADKKRNLE NDVNSLKDQL</p> <p>EDLKKRNQNS QISTEKNVQL QRQLDETAL LRTESDTAAR LRKTQAESSK QIQQLESNNR</p> <p>DLQDKNCLLE TAKLKLEKEF INLQSALESE RRDRTGSEI INDLQGRICG LEEDLKNGKI</p> <p>LLAKVELEKR QLQERFTDLE KEKSNMEIDM TYQLKVIQQS LEQEEAEHKA TKARLADKNK</p> |

IYESIEEAKS EAMKEMEKKL LEERTLKQKV ENLLLEAEKR CSLDCLDKQ SQQKINELLK  
QKDVLNEDVR NLTLKIEQET QKRCLTQNDL KMQTQQVNTL KMSEKQLKQE NNHLMEMKMN  
LEKQNAELRK ERQDADGQMK ELQDQLEAEQ YFSTLYKTQV RELKEECEEK TKLGKELQQK  
KQELQDERDS LAAQLEITLT KADSEQLARS IAEEQYSDLE KEEKIMKELEI KEMMARHKQE  
LTEKDATIAS LEETNRTLTS DVANLANEKE ELNNKLKDVQ EQLSRLKDEE ISAAAIAQF  
EKQLLTERTL KTQAVNKLAE IMNRKEPVKR GNDTDVRRKE KENRKLHMEK KSEREKLTTQ  
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 Purification-Tag is based on experiences 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.**

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| Specificity:     | If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Characteristics: | <p>Key Benefits:</p> <ul style="list-style-type: none"><li>• Made to order protein - from design to production - by highly experienced protein experts.</li><li>• Protein expressed in mammalian cells and purified in one-step affinity chromatography</li><li>• The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.</li><li>• State-of-the-art algorithm used for plasmid design (Gene synthesis).</li></ul> <p>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.</p> <p>If you are not interested in a full length protein, please contact us for individual protein fragments.</p> <p>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.</p> |
| Purity:          | > 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Grade:           | custom-made                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

## Target Details

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| Target:           | ROCK2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Alternative Name: | ROCK2 ( <a href="#">ROCK2 Products</a> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 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, ECO:0000269 PubMed:19131646, ECO:0000269 PubMed:19997641, ECO:0000269 PubMed:21084279, ECO:0000269 PubMed:21147781}.</p> |
| Molecular Weight: | 160.9 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| UniProt:          | <a href="#">075116</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Pathways:         | <a href="#">Microtubule Dynamics</a> , <a href="#">WNT Signaling</a> , <a href="#">Tube Formation</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

## Application Details

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| Application Notes: | We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though. |
| Restrictions:      | For Research Use only                                                                                                                                   |

## Handling

|         |                                                                  |
|---------|------------------------------------------------------------------|
| Format: | Liquid                                                           |
| Buffer: | The buffer composition is at the discretion of the manufacturer. |

## Handling

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|------------------|------------------------------------|
| Handling Advice: | Avoid repeated freeze-thaw cycles. |
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|----------|--------|
| Storage: | -80 °C |
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|------------------|-----------------|
| Storage Comment: | Store at -80°C. |
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| Expiry Date: | 12 months |
|--------------|-----------|