

Product datasheet for SC117098

ROCK2 (NM_004850) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: ROCK2 (NM_004850) Human Untagged Clone
Tag: Tag Free
Symbol: ROCK2
Synonyms: ROCK-II
Mammalian Cell Selection: None
Vector: pCMV6-XL6
E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene ORF sequence for NM_004850 edited
TGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCATTTAGGTGACACTA
TAGAATACAAGCTACTTGTCTTTTGCAGCGGCCGGAATTCGGCAGGAGGGGACCAGC
GGACCGGCGGCGGAATCTGACTGAGGGGCGGGACGCCGTCTGTTCCCGCCGCTCCCG
GCAAGGGCCGGCCGGCTGGGCCGGCTGGGCCGGCGGGCCCTGGGAGCAGCCCCAG
GCGGGGGACCGCCTTGGAGACCCGAAGCCGGAGCTAGAGGCAGGCGGTGGGCCCGGGTGG
AGTCCCGCCGGAGCTGGTGGTTCGGGGCGGTGCTAGGCCCGAGGCTGCGGGACCTGA
GCGCGAGGAGCCTGAGTGCGGTCCAGCGGTGGCGGCATGAGCCGGCCCCCGCCGACGGG
GAAAATGCCCGGCCCCCCGAGACCGCGCGGGGACGGGGCAGGCGCGAGCCGCCAGAG
GAAGCTGGAGGCGCTGATCCGAGACCCTCGCTCCCCATCAACGTGGAGAGCTTGTGGA
TGGCTTAAATTCCTTGGTCTTGTATTTAGATTTTCTGCTTTGAGGAAAAACAAGAACAT
AGATAATTTCTTAAATAGATATGAGAAAATTGTGAAAAAATCAGAGGTCTACAGATGAA
GGCAGAAGACTATGATGTTGTAAGATTATTGGAAGAGGTGCTTTTGGTGAAGTGCAATT
GGTTTCGCACAAGGCATCGCAGAAGTTTATGCTATGAAGCTTCTTAGTAAGTTTGAAAT
GATAAAAAGATCAGATTCTGCCTTTTTTGGGAAGAAAGAGATATTATGGCCTTTGCCAA
TAGCCCCGGGTGGTTCAGCTTTTTTATGCCTTCAAGATGATAGGTATCTGTACATGGT
AATGGAGTACATGCCTGGTGGAGACCTGTAAACCTTATGAGTAATTATGATGTGCCTGA
AAAATGGGCCAAATTTTACACTGCTGAAGTTGTTCTTGTCTGGATGCAATACACTCCAT
GGTTTTAATACACAGAGATGTGAAGCCTGACAACATGCTCTTGGATAAACATGGACATCT
AAAATTAGCAGATTTTGGCACGTGTATGAAGATGGATGAAACAGGCATGGTACATTGTGA
TACAGCAGTTGGAACACCGGATTATATACACCTGAGGTTCTGAAATCACAAGGGGTGA
TGGTTTCTATGGGCGAGAATGTGATTGGTGGTCTGTAGGTGTTTTCTTTATGAGATGCT
AGTGGGGGATACTCCATTTTATGCGGATCACTTGTAGGAACATATAGCAAAATTATGGA
TCATAAGAATCACTGTGTTTCCCTGAAGATGCAGAAATTTCAAACATGCAAAGAATCT
CATCTGTGCTTTCTTAAAGATAGGGAGGTACGACTTGGGAGAAATGGGGTGAAGAAAT
CAGACAGCATCCTTTCTTAAAGATGATCAGTGGCATTGGGATAACATAAGAGAAACGGC
AGCTCCTGTAGTACCTGAACTCAGCAGTGACATAGACAGCAGCAATTTTCGATGACATTGA



[View online »](#)

```

AGATGACAAAGGAGATGTAGAAACCTTCCAATTCTTAAAGCTTTTGTGGAAATCAGCT
GCCTTTCATCGGATTTACCTACTATAGAGAAAATTTATTATTAAGTGACTCTCCATCTTG
TAGAGAAACTGATTCCATACAATCAAGGAAAAATGAAGAAAGTCAAGAGATTCAGAAAA
ACTGTATACATTAGAAGAATCTTAGCAATGAGATGCAAGCCAAAGAGGAACTGGAACA
GAAGTGCAAACTGTGTTAATACTCGCCTAGAAAAACAGCAAAGGAGCTAGAAGAGGAGAT
TACCTTACGAAAAAGTGTGGAATCAGCATTAAAGACAGTTAGAAAGAGAAAAAGCGCTTCT
TCAGACAAAAATGCAGAATATCAGAGGAAAGCTGATCATGAAGCAGACAAAAACGAAA
TTTGGAAAATGATGTTAACAGCTTAAAAGATCAACTTGAAGATTTGAAAAAAGAAAATCA
AAACTCTCAAATATCCACTGAGAAAAGTGAATCAACTCCAGAGACAACCTGGATGAAACCA
TGCTTTACTGCGAACAGAGTCTGATACTGCAGCCCGTTAAGGAAAACCCAGGCAGAAAAG
TTCAAACAGATTCAGCAGCTGGAATCTAACAATAGAGATCTACAAGATAAAAACTGCCT
GCTGGAGACTGCCAAGTTAAAACCTTAAAAGGAATTTATCAATCTTCAGTCAGCTCTAGA
ATCTGAAAGGAGGGATCGAACCCATGGATCAGAGATAATTAATGATTTACAAGGTAGAAT
ATGTGGCCTAGAAGAAGATTTAAGAACGGCAAAATCTTACTAGCGAAAGTGAAGTGA
GAAGAGACAACCTCAGGAGAGATTTACTGATTTGAAAAGGAAAAAGCAACATGGAAT
AGATATGACATACCAACTAAAAGTTATACAGCAGAGCCTAGAACAAGAAGAGCTGAACA
TAAGGCCACAAAGGCACGACTAGCAGATAAAAAAAGATCTATGAGTCCATCGAAGAAGC
CAAATCAGAAGCCATGAAAGAAATGGAGAAGAAGCTCTTGGAGGAAAAGAACTTTAAAAACA
GAAAGTGGAGAACCTATTGCTAGAAGCTGAGAAAAAGATGTTCTCTATTAGACTGTGACCT
CAAACAGTCACAGCAGAAAAATAATGAGCTCCTTAAACAGAAAGATGTGCTAAATGAGGA
TGTTAGAAACCTGACATTAATAATAGAGCAAGAACTCAGAAGCGCTGCCTTACACAAAA
TGACCTGAAGATGCAACACAACAGGTTAACACACTAAAAATGTCAGAAAAGCAGTTAAA
CGAAGAAAAATAACCATCTCATGGAAATGAAAATGAACTTGGAAAAACAAAATGCTGAAT
TCGAAAAGAACGTCAGGATGCAGATGGGCAAAATGAAAGAGCTCCAGGATCAGCTCGAAGC
AGAACAGTATTTCTCAACCTTTTATAAAACACAAGTTAGGGAGCTTAAAGAAAGATGTGA
AGAAAAGACCAAACCTTGGTAAAGAATTGCAGCAGAAAGAACAGGAATTACAGGATGAACG
GGACTCTTTGGCTGCCAACTGGAGATCACCTTGACCAAAGCAGATTTCTGAGCAACTGGC
TCGTTCAATTGCTGAAGAACAATATTCTGATTTGGAAAAAGAGAAGATCATGAAAGAGCT
GGAGATCAAAGAGATGATGGCTAGACACAACAGGAACCTACGGAAAAAGATGCTACAAT
TGCTTCTCTTGGAGAACTAATAGGACACTAACTAGTGATGTTGCCAATCTTGCAATGA
GAAAGAAGAAATTAATAACAAATGAAAGATGTTCAAGAGCAACTGTCAAGATTGAAAGA
TGAAGAAATAAGCGCAGCAGCTATTAAGCACAGTTTGAGAAGCAGCTATTAACAGAAAAG
AACACTCAAACTCAAGCTGTGAATAAGTTGGCTGAGATCATGAATCGAAAAGAACCTGT
CAAGCGTGGTAATGACACAGATGTGCGGAGAAAAGAGAAGGAGAAATAGAAAGCTACATAT
GGAGCTTAAATCTGAACGTGAGAAATGACCCAGCAGATGATCAAGTATCAGAAAGAACT
GAATGAAATGCAGGCACAAATAGCTGAAGAGAGCCAGATTCGAATTGAACTGCAGATGAC
ATTGGACAGTAAAGACAGTGACATTGAGCAGCTGCGGTACAACCTCAAGCCTTGATAT
TGGTCTGGATAGTTCAGTATAGGCAGTGGACCAGGGGATGCTGAGGCAGATGATGGGTT
TCCAGAATCAAGATTAGAAGGATGGCTTTCATTGCCTGTACGAAAACAACACTAAGAAAT
TGGATGGGTTAAAAAGTATGTGATTGTAAGCAGTAAGAAGATTCTTTTCTATGACAGTGA
ACAAGATAAAGAACAATCCAATCCTTACATGGTTTTAGATATAGACAAGTTATTTTCATGT
CCGACCAGTTACACAGACAGATGTGTATAGAGCAGATGCTAAAGAAAATCCAAGGATATT
CCAGATTTCTGTATGCCAATGAAGGAGAAAAGTAAGAAGGAACAAGAATTTCCAGTGGAGCC
AGTTGGAGAAAAATCTAATTATATTTGCCACAAGGACATGAGTTTATTCCTACTCTTTA
TCATTTCCCAACCAACTGTGAGGCTTGATGAAGCCCCTGTGGCAGATGTTTAAAGCCTCC
TCCTGCTTTGGAGTGCCCGCTTGCCATATTAAGTGCATAAAGATCATATGGACAAAAA
GGAGGAGATTATAGCACCTTGCAAAGTATATTATGATATTTCAACGGCAAAGAATCTGTT
ATTACTAGCAAATTTCTACAGAAGAGCAGCAGAAGTGGGTTAGTCCGTTGGTGAAAAAGAT
ACCTAAAAAGCCCCAGCTCCAGACCCTTTTGCCCGATCATCTCCTAGAACTTCAATGAA
GATACAGCAAAACCAAGTCTATTAGACGGCCAAGTCGACAGCTTGCCCAAACAACCTAG
CTAACTGCCTTCTATGAAAGCAGTCATTATTCAAGGTGATCGTATTCTTCCAGTGAAGAA
AAGACTGAAATATGATGGCCAAAATTTATTAAGGCTATATTTTCTGAGAGACTGAT

```

ACATACACTCATACATATATGTGTTCCCTTTTCCCTGTAATATAAATTACAAATCTGGG
CTCCTTTGAAGCAACAGGTTGAACCAACAATGATTGGTTGATAGACTAAG

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_004850 unedited
CCTCATTACCCCGCCCGTTGACGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATAT
AAGCAGAGCTCATTTAGGTGACACTATAGAATACAAGCTACTTGTCTTTTTGCAGCGGC
CGCGAATTCGGCACGAGGGGACCAGCGGACCGGCGCGGAATCTGACTGAGGGGCGGGG
ACGCCGTCTGTTCCCGCCGCTCCCGGCAGGGCCGGCCGGCTGGGCCGGGCTGGGCCG
GGCGGGCCCTGGGAGCAGCCCCAGGCGGGGACCGCCTTGGAGACCCGAAGCCGGAGC
TAGAGGCAGGCGGTGGGCCCGGTGGAGTCCCGGCCGGAGCTGGTGGTTCGGGGGCGGTG
CTAGGCCCCGAGGCTGCGGGACCTGAGCGCAGGAGCCTGAGTGCGGGTCCAGCGGTGGC
GGCATGAGCCGGCCCCCGCCGACGGGAAAATGCCCGCGCCCCGAGACCGCGCCGGGG
GACGGTGCAGGCGCAGCCGAGGAAAGCTGGAGGCGCTGATCCGAGACCTCGCTCC
CCCATCAACGTGGAGAGCTTGTGGATGGCTTAAATTCCTTGGTCTTGTATTTAGATTTT
CCTGCTTTGAGGAAAACAAGAACAATAGATAATTTCTTACATAGATATGAGAAAATTGTG
AAAAAATCAGAGGTCTACAGATGAAGGCAGACACTATGATGTTGAAAAGTTATTGGC
AGAGGTGCTTTTGGTGAAGTGCAGTTGGTTCGTACAGGCATCGCAGAGGTTATGCTAT
GAAGCTTCTTAGTGTGTAATGATAAAAAGACAGATTCTGCCTTNTTTGGGAGCAAGA
GATATATGGCCTTTGCCATAGCCCCTGGGTGGTTCAGCTTNTTTTAGTCTTTCAGACGAT
GGTATCTGTACATGTCATG

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_004850 unedited
TTACTTGNC CGCGCCGCAATCTANGATCGAGTTTTTTTTTTTTTTTTTTTGGAGACGGA
TCTTGTTGAGTGGCCAGGCTGAGAGTGCACCAGCTCGATCTTCGCTCACTGCAACACAC
CGACTCCTGGGTTCAAGCGATTCTCCTGTCTCAGCTTCCAACTCCCTGGGATTACCGGC
CAGCCTCATTGCGCCCGCTAATTTTTGCATATTGTTATAGACGGATCTACCCCTTTTC
GGCATGGCTCGGACTCGAACTCCATCACCACATGCGATCCTGCCCTCTGGCTCCTCG
AATTGCTACGATTACATGCGAAGCCTCCATACCTGGCCAGATGATGTTTTTAAATATGA
CACCCAACCTGTGCCTTGATATAAAGAGAGCTGTTCTCTACTTCTGGTGTGCACTTAA
CAATAACTTTTCTCAATCTTTACGCATACCAATGATGCGCATTGTGTGCTTGCCAACAAA
CACTCTCTTATCTGGAAACGTGACAACCCGCCAGAATGACCTGCAATGACTGCAACTTT
GACAGCGTCTATGACACTAGCAGTCTACTTGAGCGACTTTGAACTCCCGTCTCTCTCATT
GCCACCTTTGCGAACCGCTCACTCTTATACAGCGCAACCTGGCTGCATTGTTGCAGCCCA
TTTTTAAAGTTAACATGCCTTTCCGTTGCGAAAAACCTTTTATATTACTTGGAAAAAT
TAAAAATCTTAGATCTTAAAAGGAACACCCAAAGTTCTTACAACCATAATAACCCCTCTG
GGGCCACCAGCGAATTCAAAACAAAAAATTTCTCCCCCCCCACCCATACGGGAAACC
CGCAACAACTCCCTAATTTTTGCCCACTAAAGCAAATTCCTTGAATCCAAAACCT
CGGGGACAAAAAACAG

Restriction Sites:

NotI-NotI

ACCN:

NM_004850

Insert Size:

6900 bp

OTI Disclaimer:

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

Components:

The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_004850.3 , NP_004841.2
RefSeq Size:	6401 bp
RefSeq ORF:	4167 bp
Locus ID:	9475
UniProt ID:	O75116
Cytogenetics:	2p25.1
Domains:	pkinese, HR1, PH, M
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Axon guidance, Chemokine signaling pathway, Focal adhesion, Leukocyte transendothelial migration, Pathogenic Escherichia coli infection, Regulation of actin cytoskeleton, TGF-beta signaling pathway, Vascular smooth muscle contraction, Wnt signaling pathway
Gene Summary:	The protein encoded by this gene is a serine/threonine kinase that regulates cytokinesis, smooth muscle contraction, the formation of actin stress fibers and focal adhesions, and the activation of the c-fos serum response element. This protein, which is an isozyme of ROCK1 is a target for the small GTPase Rho. [provided by RefSeq, Jul 2008]