

Product datasheet for MC224322

Rock1 (NM_009071) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Rock1 (NM_009071) Mouse Untagged Clone
Tag: Tag Free
Symbol: Rock1
Synonyms: 1110055K06Rik; Rock-1
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC224322 representing NM_009071
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCGACTGGGACAGTTTTGAGACTCGGTTTAAAAAATCGACAACCTGCTGCGGGATCCAAATCGG
 AAGTGAATTCAGATTGTTTCTGGATGGATTGGATGCCCTGGTTTATGATTTGGATTTCTGCCTTAAG
 AAAAAACAAAAATATTGACAACCTTCTAAGCAGATATAAAGACACAATAAATAAAATTAGAGATTTACGG
 ATGAAAGCAGAAGATTATGAAGTGGTAAAGGTAATCGGCAGAGGTGCATTTGGAGAAGTTCAATTGGTGA
 GGATAAAATCCACTAGGAAGTTTATGCTATGAAGCTGCTCAGCAAAATTTGAAATGATTAAGAGATCGGA
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 TATGCATTCGAAGATGACCGGTATCTCTACATGGTGATGGAGTACATGCCTGGCGGAGACCTTGTCAACC
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 TGCAATCCATTCATGGGTTTTATTCTAGAGATGTAAGCCTGATAACATGCTGCTGGATAAGTCTGGA
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ATGAAGTTTCTACACTAAAGGACCAGTTAGAAGACTTACGGAAAGCAAGTCAGACCTCACAGCTTGCTAA
 TGAGAAGCTGACACAGTTACAGAAGCAGTTAGAAGAAGCGAATGACTTACTTAGGACAGAATCAGACACA
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 GTTAGACATAGATAAATGTTTCATGTCCGACCTGAACCAAGGAGATGTGTACAGAGCAGAAACTGAA
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 CTTTCCTGCCAAGTGTGAGGCCTGTGCCAACCTTTGTGGCATGTCTTTAAGCCACCACCTGCCCTAGAG
 TGTGCAAGATGCCATGTTAAGTGCCACAGAGACCATCTAGACAAGAAAGAGGACTTGATTTCCCGTGCA
 AAGTAAGTTACGATGTAACATCAGCAAGAGATATGCTGCTGTTAGCATGTTCTCAGGATGAACAAAAAA
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 ACGCTGTCAACAAGATCCACTGCAAAATCAGTCTTCCGCAAGTAGTCAAAAATACATCTGGAAAACTA
 GTTAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:

Sgfl-Mlul

ACCN:

NM_009071

Insert Size:

4065 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:	<u>NM_009071.2</u> , <u>NP_033097.1</u>
RefSeq Size:	6187 bp
RefSeq ORF:	4065 bp
Locus ID:	19877
UniProt ID:	<u>P70335</u>
Cytogenetics:	18 A1
Gene Summary:	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. Required for centrosome positioning and centrosome-dependent exit from mitosis. Plays a role in terminal erythroid differentiation. Promotes keratinocyte terminal differentiation (By similarity). 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. Involved in osteoblast compaction through the fibronectin fibrillogenesis cell-mediated matrix assembly process, essential for osteoblast mineralization. May regulate closure of the eyelids and ventral body wall by inducing the assembly of actomyosin bundles.[UniProtKB/Swiss-Prot Function]