

Product datasheet for **RC217764**

ROCK2 (NM_004850) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ROCK2 (NM_004850) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ROCK2
Synonyms:	ROCK-II
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC217764 representing NM_004850 Red=Cloning site Blue=ORF Green=Tags(s)

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Protein Sequence: >RC217764 representing NM_004850
Red=Cloning site Green=Tags(s)

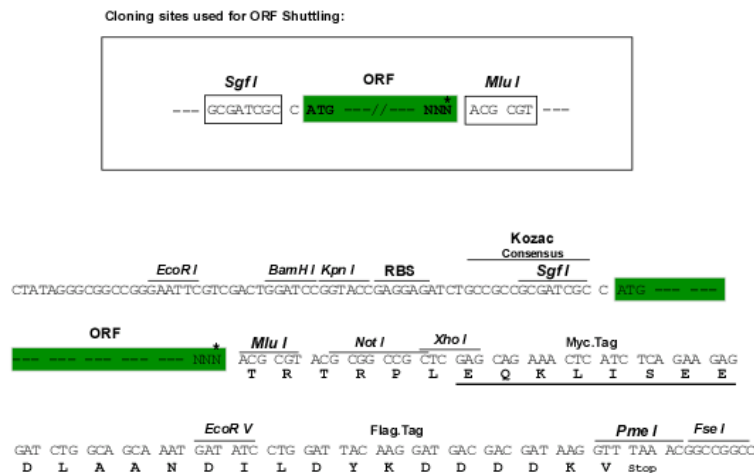
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6219_f09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_004850

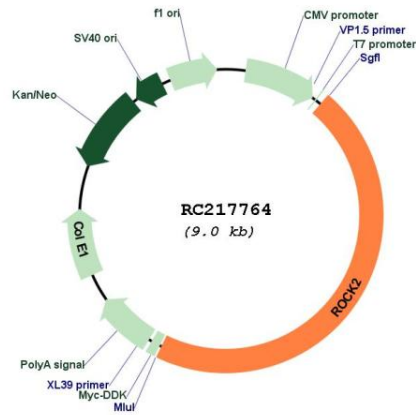
ORF Size: 4164 bp

OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery. The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
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:	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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_004850.5
RefSeq Size:	6401 bp
RefSeq ORF:	4167 bp
Locus ID:	9475
UniProt ID:	Q75116
Cytogenetics:	2p25.1
Domains:	pkinase, 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
MW:	160.7 kDa

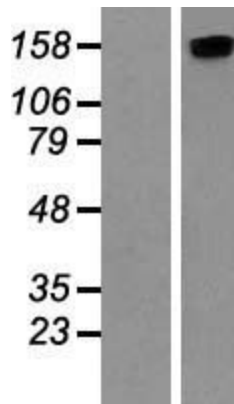
Gene Summary:

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]

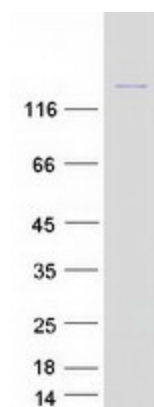
Product images:



Circular map for RC217764



Western blot validation of overexpression lysate (Cat# [LY417653]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217764 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ROCK2 protein (Cat# [TP317764]). The protein was produced from HEK293T cells transfected with ROCK2 cDNA clone (Cat# RC217764) using MegaTran 2.0 (Cat# [TT210002]).