

Product datasheet for **RC203171**

MEK5 (MAP2K5) (NM_145160) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MEK5 (MAP2K5) (NM_145160) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MEK5
Synonyms:	HsT17454; MAPKK5; MEK5; PRKMK5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC203171 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCTGTGGCTAGCCCTTGCCCTTCTGCCATGGAGAACCAGGTGCTGGTAATTCGCATCAAGATCC
 CAAATAGTGGCGGGTGGACTGGACAGTGCCTCCGGCCGAGTTACTCTTCAGGGATGTGCTGGATGT
 GATAGGCCAGGTTCTGCCTGAAGCAACAACACAGCATTGAATATGAAGATGAAGATGGTATCGAATT
 ACAGTGAGAAGTGATGAGGAAATGAAGGCAATGCTGTCATATTATTCCACAGTAATGGAACAGCAAG
 TAAATGGACAGTTAATAGAGCCTCTGCAGATATTTCCAAGAGCCTGCAAGCCTCTGGGGAACGGAACAT
 ACATGGCCTGAAGGTGAATACTCGGGCCGACCCTCTCAACACAGCAGCCAGCAGTCTCAGATTCACTT
 CCAAGCAATAGCTTAAAGAAGTCTTCTGCTGAAGTAAAAAATACTAGCCAATGGCCAGATGAATGAAC
 AAGACATACGATATCGGGACACTCTTGGTCATGGCAACGGAGGCACAGTCTACAAAGCATATCATGTCCC
 GAGTGGGAAAATATTAGCTGTAAGGTCATACTACTAGATATTACTGGAACCTCAGAAGCAAATTATG
 TCTGAATTGGAAATCTTTATAAGTGCATTATCATATATCATTGGATTTTATGGAGCATTTTTGTAG
 AAAACAGGATTTCAATATGTACAGAATTCATGGATGGGGGATCTTTGGATGTATATAGGAAAATGCCAGA
 ACATGTCTTGGGAAGATTGCAGTAGCAGTTGTTAAAGGCCTTACTTATTTGTGGAGTTTAAAGATTTTA
 CATAGAGACGTGAAGCCCTCCAATATGCTAGTAAACACAAGAGGACAGGTTAAGCTGTGTGATTTGGAG
 TTAGCACTCAGCTGGTGAATCTATAGCCAAGCAGTATGTTGGAACAAATGCTTATATGGCGCCTGAAAG
 GATTTTCAGGGGAGCAGTATGGAATTCATTCTGATGTCTGGAGCTTAGGAATCTCTTTATGGAGCTTGCT
 CTTGGGAGGTTTCCATATCCTCAGATTCAGAAAAACCAGGGATCTTTAATGCCTCTCCAGCTTCTGCAGT
 GCATTGTTGATGAGGATTCGCCCTCTCCAGTTGGAGAGTTCTCGGAGCCATTTGTACATTTTCACAC
 TCAGTGTATGCGAAAACAGCCAAAAGAAAGGCCAGCACCTGAAGAATTGATGGGCCACCCGTTTCATCGTG
 CAGTTCAATGATGAAATGCCGCGTGGTGTCCATGTGGGTGTGCCGGGCTGGAGGAGAGCGGAGCC
 AGCAGGGGCCCCCG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC203171 protein sequence
 Red=Cloning site Green=Tags(s)

MLWLAGPFPAMENQVLVIRIKIPNSGAVDWTVHSGPQLLFRDVLVIGQVLEATTTAFEYEDEDGDRIT
 TVRSDEEMKAMLSYYYSTVMEQQVNGQLIEPLQIFPRACKPPGERNIHGLKVNTRAGPSQHSSPAVSDSL
 PSNSLKKSSAELKKILANGQMNEQDIRYRDTLGHGNGGTVYKAYHVPSTGILAVKVILLDITLQKQIM
 SELEILYKCDSSYIIGFYGAFFVENRISICTEFMDGSLDVYRKMPHEHLGRIAVAVVKGLTYLWLSKIL
 HRDVKPSNMLVNTRGQVKLCDFGVSTQLVNSIAKTYVGTNAYMAPERISGEQYGIHSDVWLSGISFMELA
 LGRFPYPQIQKNQGLMPLQLLQCIVDEDSPVLPVGEFSEPFVHFITQCMRKQPKERPAPEELMGHPFIV
 QFNDGNAAVSMWVCRALEERSQQGPP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6152_b11.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_145160

ORF Size: 1344 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](#)

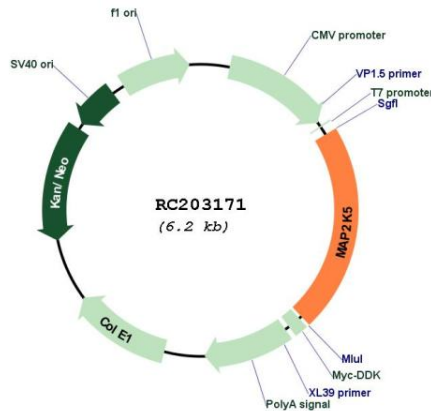
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

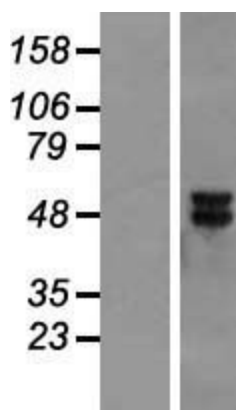
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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.

RefSeq:	NM_145160.3
RefSeq Size:	2385 bp
RefSeq ORF:	1347 bp
Locus ID:	5607
UniProt ID:	Q13163
Cytogenetics:	15q23
Domains:	PB1, pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Gap junction, MAPK signaling pathway, Neurotrophin signaling pathway
MW:	50.1 kDa
Gene Summary:	The protein encoded by this gene is a dual specificity protein kinase that belongs to the MAP kinase kinase family. This kinase specifically interacts with and activates MAPK7/ERK5. This kinase itself can be phosphorylated and activated by MAP3K3/MEKK3, as well as by atypical protein kinase C isoforms (aPKCs). The signal cascade mediated by this kinase is involved in growth factor stimulated cell proliferation and muscle cell differentiation. Three alternatively spliced transcript variants of this gene encoding distinct isoforms have been described. [provided by RefSeq, May 2011]

Product images:



Circular map for RC203171



Western blot validation of overexpression lysate (Cat# [LY408026]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203171 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).