

Product datasheet for **RC222767**

MCK10 (DDR1) (NM_013993) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MCK10 (DDR1) (NM_013993) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MCK10
Synonyms:	CAK; CD167; DDR; EDDR1; HGK2; MCK10; NEP; NTRK4; PTK3; PTK3A; RTK6; TRKE
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC222767 representing NM_013993
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGGACCAGAGGCCCTGTCATCTTTACTGCTGCTCTTGGTGCAAGTGAGATGCTGACATGAAGG
 GACATTTTGGATCCTGCCAAGTGCCTATGCCCTGGGCATGCAGGACCGGACCATCCAGACAGTGACAT
 CTCTGCTTCCAGCTCCTGGTCAGATTCCACTGCCGCCGCCACAGCAGGTTGGAGAGCAGTGACGGGGAT
 GGGCCTGGTGCCCGCAGGGTCCGTTTCCCAAGGAGGAGGACTTGCAGGTGGATCTACAACGAC
 TCCACCTGGTGGCTCTGGTGGGCACCCAGGGACGGCATGCCGGGGCCTGGGCAAGGAGTTCTCCCGGAG
 CTACCGGCTGCGTTACTCCCGGATGGTCGCCGCTGGATGGGCTGGAAGGACCGCTGGGGTCAGGAGGTG
 ATCTCAGGCAATGAGGACCTGAGGGAGTGGTCTGAAGGACCTGGGCCCCCATGGTTGCCGACTGG
 TTCGTTCTACCCCGGGCTGACCGGTCATGAGCGTCTGTCTGCGGGTAGAGCTCTATGGCTGCCTCTG
 GAGGGATGGACTCCTGTCTTACACCGCCCTGTGGGCAGACAATGTATTTATCTGAGGCCGTGTACCTC
 AACGACTCCACCTATGACGGACATACCGTGGGCGGACTGCAGTATGGGGTCTGGCCAGCTGGCAGATG
 GTGTGGTGGGGCTGGATGACTTTAGGAAGAGTCAGGAGCTGCGGGTCTGGCCAGGCTATGACTATGTGGG
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 CTCTTTGGGGCCCTGGTTACTCTTACGCGAAATCTCCTTATCTCTGATGTGGTGAACAATTCCTCTC
 CGGCATGGGAGGCACCTTCCCGCCAGCCCTGGTGGCCGCTGGCCACCTCCACCACTCCACTTCCTC
 CTTGGAGCTGGAGCCAGAGGCCAGAGCCAGAGCCCTGGCCAAGGCCGAGGGGAGCCCGACCCGATCCTCATC
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 GGACACTATCCTCATCAACAACCGCCAGGTCCTAGAGAGCCACCCCGTACCAGGAGCCCGGCCCTCGT
 GGGAAATCCGCCCCACTCTGCTCCTGTGTCCCAATGGCTCTGCGTTGCTGCTCTCAATCCAGCCTACC
 GCCTCCTTCTGGCACTTACGCCGTCCCTCGAGGCCCGGGCCCCCACACCCGCTGGGCCAAACC
 CACCAACACCCAGGCTACAGTGGGACTATATGGAGCCTGAGAAGCCAGGCGCCCGCTCTGCCCCCA
 CCTCCCCAGAACAGCGTCCCCATTATGCCAGGCTGACATTGTTACCCTGCAGGGCGTACCCGGGGCA
 ACACCTATGCTGTGCCTGCACTGCCCCAGGGGAGTCCGGGATGGGCCCCAGAGTGGATTTCCCTCG
 ATCTCGACTCCGTTCAAGGAGAAGCTTGGCGAGGGCCAGTTGGGGAGGTGCACCTGTGTGAGGTGAC
 AGCCCTCAAGATCTGGTCACTTGTATTTCCCTTAATGTGCGTAAGGGACACCCCTTGTGCTAGCTG
 TCAAGATCTTACGGCCAGATGCCACCAAGAATGCCAGGAATGATTTCTGAAAGAGGTGAAGATCATGTC
 GAGGCTCAAGGACCCAAACATCATTCCGGCTGCTGGGCGTGTGTGTGCAGGACGACCCCTCTGCATGATT
 ACTGACTACATGGAGAACGGTGACCTCAACCAGTTCTCAGTGCCACCAGCTGGAGGACAAGGCAGCCG
 AGGGGGCCCTGGGGACGGGACGGCTGCGCAGGGGCCACCATCAGTACCCAATGCTGCTGCATGTGGC
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 AACTGCCTAGTTGGGAAAATTTACCATCAAAATCGCAGACTTTGGCATGAGCCGGAACCTCTATGCTG
 GGGACTATTACCGTGTGCAGGGCCGGCAGTGCTGCCATCCGCTGGATGGCCTGGGAGTGCATCCTCAT
 GGGGAAGTTCACGACTGCGAGTGACGTGTGGCCTTTGGTGTGACCCTGTGGGAGGTGCTGATGCTGT
 AGGGCCAGCCCTTTGGGACGCTACCGACGAGCAGGTATCGAGAACCGGGGGAGTTCTCCGGGACC
 AGGGCCGGCAGGTGTACCTGTCCCGCCGCTGCCTGCCCGAGGCCTATATGAGCTGATGCTTCGGTG
 CTGGAGCCGGGAGTCTGAGCAGCAGCACCCCTTTCCAGCTGCATCGGTTCTGGCAGAGGATGCACTC
 AACACGGTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGAT AAGGTTTAA

Protein Sequence: >RC222767 representing NM_013993
 Red=Cloning site Green=Tags(s)

MGPEALSSLLLLL VASGDADMKGHFDPKCRYALGMQDRTIPDSISASSSWSDSTAARHSRLESSDGD
 GAWCPAGSVFPKEEYLQVDLQRLHLVALVGTQGRHAGGLGKEFSRSYRLRYSRDGRRWGWKDRWGQEV
 ISGNEDPEGVVLKDLGPPMVARLVRFYPRADRVMSVCLRVELYGCLWRDGLLSYAPVQTMYLSEAVYL
 NDSTYDGHTVGGGLQYGGGLQGLADGVVGLDDFRKSQELRVWPGYDYVGSNHSFSSGYVEMEFEDRLRAF
 QAMQVHCNNMHTLGARLPGGVECRFRRGPAMAWEGEPMRHNLGGNLGDPRARAVSVPLGGRRVARFLQCRF
 LFAGPWLLFSEISFISDVVNNSSPALGGTFPPAPWPPGPPPTNFSSLELEPRGQQPVAKAEGSPTAILI
 GCLVAIILLLLLIIALMLWRLHWRLLSKAERRVLEEELTVHLSVPGDTILINNRPGPREPPPYQEPRPR
 GNPPHSAPCVNGSALLSNPAYRLLLATYARPPRGPGPPTPAWAKPTNTQAYSGDYMEPEKPGAPLLPP
 PPQNSVPHYAEADIVTLQGVTTGGNTYAVPALPPGAVGDGPPRVDFPRSRLRFKEKLGEGQFGEVHLCEVD
 SPQDLVSLDFPLNVRKGHPLLVAVKILRPDATKNARNDFLKEVKIMSRLKDPNIIRLLGVCVQDDPLCMI
 TDYMEGDLNQFLSAHQLEDKAAEGAPGDGQAAQGPTISYPMLLHVAAQIASGMRYLATLNFVHRDLATR
 NCLVGENFTIKIADFMSRNL YAGDYR VQGRAVLP IRWMAWECILMGKFTTASDVWAFGVTLWEVLMC
 RAQPFQGLTDEQVIENAGEFRDQGRQVYLSRPPACPQGLYELMLRCWSRESEQRPPFSQLHRFLAEDAL
 NTV

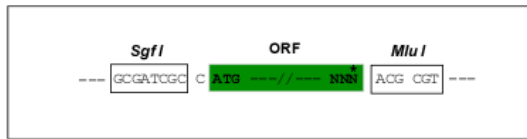
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6686_a01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_013993

ORF Size: 2739 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_013993.2](#), [NP_054699.2](#)

RefSeq Size: 3877 bp

RefSeq ORF: 2742 bp

Locus ID: 780

UniProt ID: [Q08345](#)

Cytogenetics: 6p21.33

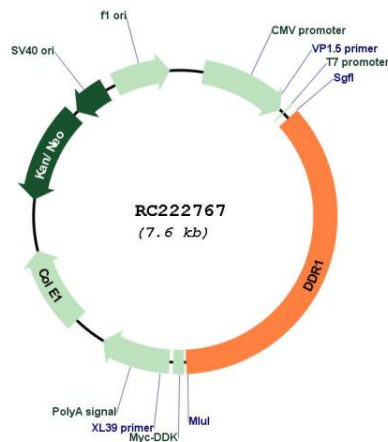
Domains: F5_F8_type_C, pkinase, TyrKc, S_TKc

Protein Families: Druggable Genome, Protein Kinase, Transmembrane

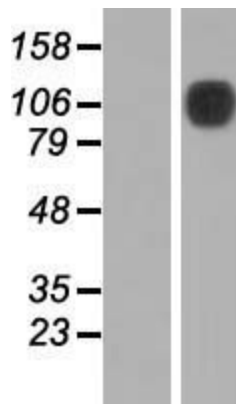
MW: 100.9 kDa

Gene Summary:

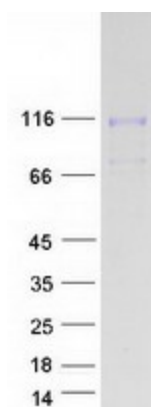
Receptor tyrosine kinases play a key role in the communication of cells with their microenvironment. These kinases are involved in the regulation of cell growth, differentiation and metabolism. The protein encoded by this gene belongs to a subfamily of tyrosine kinase receptors with homology to Dictyostelium discoideum protein discoidin I in their extracellular domain, and that are activated by various types of collagen. Expression of this protein is restricted to epithelial cells, particularly in the kidney, lung, gastrointestinal tract, and brain. In addition, it has been shown to be significantly overexpressed in several human tumors. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Feb 2011]

Product images:


Circular map for RC222767



Western blot validation of overexpression lysate (Cat# [LY415575]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222767 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DDR1 protein (Cat# [TP322767]). The protein was produced from HEK293T cells transfected with DDR1 cDNA clone (Cat# RC222767) using MegaTran 2.0 (Cat# [TT210002]).