

Product datasheet for **RC213764**

MARK2 (NM_017490) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MARK2 (NM_017490) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MARK2
Synonyms:	EMK-1; EMK1; PAR-1; Par-1b; Par1b
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC213764 representing NM_017490
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGATTGGGGCCGCAACTCAGCCACCTCTGCTGATGAGCAGCCCCACATTGGAAACTACCGGCTCCTCA
 AGACCATTGGCAAGGGTAATTTTCCCAAGGTGAAGTTGGCCCGACACATCCTGACTGGGAAAGAGGTAGC
 TGTGAAGATCATTGACAAGACTCAACTGAACTCCTCCAGCCTCCAGAACTATTCCGCGAAGTAAGAATA
 ATGAAGGTTTTGAATCATCCCAACATAGTTAAATTATTTGAAGTGATTGAGACTGAGAAAACGCTTACC
 TTGTGATGGAGTACGCTAGTGGCGGAGAGGTATTTGATTACCTAGTGGCTCATGGCAGGATGAAAGAAAA
 AGAGGCTCGAGCCAAATTCGCCAGATAGTGTCTGCTGTGCAGTACTGTCACCAGAAGTTTATTGTCCAT
 AGAGACTTAAAGGCAGAAAACCTGCTCTTGGATGCTGATGAACATCAAGATTGCAGACTTTGGCTTCA
 GCAATGAATTCACCTTTGGGAACAAGCTGGACACCTTCTGTGGCAGTCCCCCTTATGCTGCCCCAGA
 ACTCTCCAGGGCAAAAAATATGATGGACCCGAGGTGGATGTGTGGAGCCTAGGAGTTATCCTCTATACTG
 GTCAGCGGATCCCTGCCTTTTGTGAGACAGAACCTCAAGGAGCTGCGGGAAACGGGTACTGAGGGGAAAT
 ACCGTATTCCATTCTACATGTCCACGGACTGTGAAAACCTGCTTAAGAAATTTCTCATTCTTAATCCAG
 CAAGAGAGGCACTTTAGAGCAAATCATGAAAGATCGATGGATGAATGTGGGTACGAAAGATGATGAACTA
 AAGCCTTACGTGGAGCCACTCCCTGACTACAAGGACCCCGCGGACAGAGCTGATGGTGTCCATGGGTT
 ATACACGGGAAGAGATCCAGGACTCGTGGTGGCCAGAGATAACAACGAGGTGATGGCCACCTATCTGCT
 CCTGGGCTACAAGAGCTCCGAGCTGGAAGGCGACACCATCACCCTGAAACCCCGGCTTCAGCTGATCTG
 ACCAATAGCAGCGCCCCATCCCCATCCCACAAGGTACAGCGCAGCGTGTGGCCAAATCCCAAGCAGCGCC
 GCTTCAGCGACCAAGGCTGGTCTGCTTCCACCTCTAATTCTTACTCTAAGAAGACTCAGAGTAACAA
 CGCAGAAAATAAGCGGCCTGAGGAGGACCGGGAGTCAGGGCGGAAAGCCAGCAGCACAGCCAAGGTGCT
 GCCAGCCCCCTGCCCGGTCTGGAGAGGAAGAAGACCACCCCAACCCCTCCACGAACAGCGTCTCTCCA
 CCAGCACAAATCGAAGCAGGAATTCCTTGGAGCGGGCCAGCCTCGGCCAGGCTCCATCCAGAA
 TGGCAAAGACAGCCTAACCATGCCAGGGTCCCGGGCTCCACGGCTTCTGCTTCTGCCGAGTCTCTGCG
 GCCCGGCCCGCCAGCACCAGAAATCCATGTGGCCTCCGTGCACCCCAACAAGGCTCTGGGCTGCCCC
 CCACGGAGAGTAAGTGTGAGGTGCCGGGCCAGCACAGCCCCCAGCGTGTCCCTGTTGCCTCCCCATC
 CGCCACAACATCAGCAGCAGTGGTGGAGCCCCAGACCGAACTAATTCCCCGGGGTGTGTCCAGCCGA
 AGCACCTTCCATGCTGGCAGCTCCGACAGGTGCGGGACCAGCAGAAATTTGCCCTACGGTGTGACCCAG
 CCTCTCCCTCTGGCCACAGCCAGGGCCGGCGGGGGCCTCTGGGAGCATCTTCAGCAAGTTCACCTCCAA
 GTTTGTACGCAGGAACCTGAATGAACCTGAAAGCAAAGACCGAGTGGAGACGCTCAGACCTCACGTGGT
 GGCAGTGGCGGCAACGACAAAGAAAAGGAAGAAATTTGGGAGGCCAAGCCCCGCTCCCTCCGCTTACGT
 GGAGTATGAAGACCACGAGCTCCATGGAGCCCAACGAGATGATGCGGGAGATCCGCAAGGTGCTGGACGC
 GAACAGCTGCCAGAGCGAGCTGCATGAGAAGTACATGCTGCTGTGCATGCACGGCACGCCGGGCCAGAG
 GACTTCGTGCAGTGGGAGATGGAGGTGTGCAAACCTGCCCGGCTCTCTCAACGGGGTTCGATTTAAGC
 GGATATCGGGCACCTCCATGGCCTTCAAAAACATTGCCTCAAAAATAGCCAACGAGCTGAAGCTT

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGAT AAGGTTTAA

Protein Sequence: >RC213764 representing NM_017490
Red=Cloning site Green=Tags(s)

MIRGRNSATSADQPHIGNYRLLKTIGKGNFAKVKLARHILTGKEVAVKIIDKTQLNSSLQKLFREVRI
 MKVLNHPNIVKLFVIEIEKTL YL VMEYASGGVFDYL VAHGRMKEKEARAKFRQIVSAVQYCHQKFI VH
 RDLKAENLLLDADMNIKIADFGFSNEFTFGNKLDTFCGSPPYAAPELFGKKYDGPEDVWVSLGVILYTL
 VSGSLPFDGQNLKELRERVLRGKYRIPFYMSTDCENLLKKFLILNPSKRGTLLEQIMKDRWMNVGHEDDEL
 KPYYEPLPDYKDRRTELMVSMGYTREEIQDSL VGQRYNEVMATYLLLLGYKSSELEGDTITLKPRPSADL
 TNSSAPSPSHKVQRSVSNPKQRRFSDQAGPAIPTSNSYSKKTQSNNANRPEEDRESGRKASSTAKVP
 ASPLPGLERKKTTPSTNSVLSTSTNRSRNSPLLERASLGQASIQNGKDSL TMPGSRASASASA AVSA
 ARPRQHQSMSASVHPNKASGLPPTESNCEVPRPSTAPQRPVAVSPSAHNISSSGGAPDRNTNFRGVSSR
 STFHAGQLRQVRDQQLPYGVTPASPSGHSQGRRGASGSIFSKFTSKFVRRNLNEPESKDRVETLRPHVV
 GSGGNDKEKEEFREAKPRSLRFTWSMKTTSSMEPNEMMREIRKVL DANSCQSELHEKYMLLCMHGTPGHE
 DFVQWEMEVCCLPRLSLNGVRFKRISGTSMAFKNIASKIANELKL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3171_d01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



ACCN: NM_017490

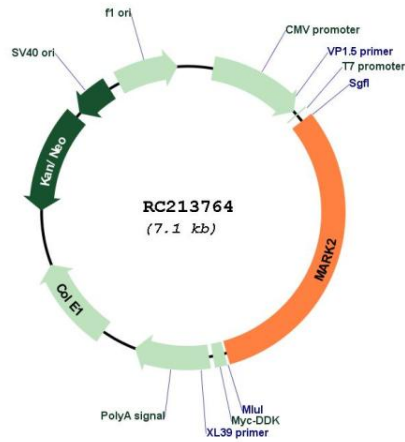
ORF Size: 2235 bp

OTI Disclaimer: 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](#)

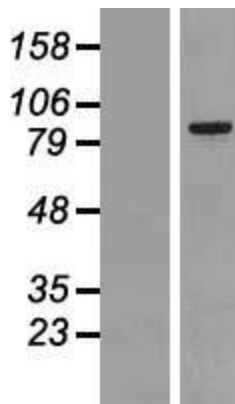
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_017490.4
RefSeq Size:	2946 bp
RefSeq ORF:	2238 bp
Locus ID:	2011
UniProt ID:	Q7KZ17
Cytogenetics:	11q13.1
Domains:	UBA, pkinase, KA1
Protein Families:	Druggable Genome, Protein Kinase
MW:	82.9 kDa
Gene Summary:	This gene encodes a member of the Par-1 family of serine/threonine protein kinases. The protein is an important regulator of cell polarity in epithelial and neuronal cells, and also controls the stability of microtubules through phosphorylation and inactivation of several microtubule-associated proteins. The protein localizes to cell membranes. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2009]

Product images:



Circular map for RC213764



Western blot validation of overexpression lysate (Cat# [LY413771]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213764 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).