

Product datasheet for **RC210279**

MARK2 (NM_004954) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MARK2 (NM_004954) 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:

>RC210279 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCCAGCGCTCGGACCCCTACCCAGCTGAACGAGAGGGACACGGAGCAGCCACCTTGGGACACC
TTGACTCCAAGCCAGCAGTAAGTCCAACATGATTCGGGGCCGCAACTCAGCCACCTCTGCTGATGAGCA
GCCCCACATTGAAACTACCGGCTCCTCAAGACATTGGCAAGGGTAATTTTCCAAAGGTGAAGTTGGCC
CGACACATCTGACTGGGAAAGAGGTAGCTGTGAAGATCATTGACAAGACTCAACTGAACTCCTCCAGCC
TCCAGAAACTATTCGCGAAGTAAGAATAATGAAGTTTTGAATCATCCCAACATAGTTAAATTATTTGA
AGTGATTGAGACTGAGAAAACGCTCTACCTTGTTCATGGAGTACGCTAGTGGCGGAGAGGTATTTGATTAC
CTAGTGGCTCATGGCAGGATGAAAGAAAAAGGGCTCGAGCCAAATTCGCCAGATAGTGTCTGCTGTGC
AGTACTGTACCAGAAGTTTATTGTCCATAGAGACTTAAAGGCAGAAAACCTGCTCTTGATGCTGATAT
GAACATCAAGATTGCAGACTTTGGCTTCAGCAATGAATCACCTTTGGGAACAAGCTGGACACCTTCTGT
GGCAGTCCCCCTTATGCTGCCCAAGAACTTCCAGGGCAAAAAATATGATGGACCCGAGGTGGATGTGT
GGAGCCTAGGAGTTATCCTCTATACACTGGTCAGCGGATCCCTGCCTTTTATGAGGACAGAACCTCAAGGA
GCTGCGGGAACGGGTAAGTACTGAGGGGAAAATACCGTATTCCATTCTACATGTCCACGGACTGTGAAAACCTG
CTTAAGAAATTTCTATTCTTAATCCCAGCAAGAGAGGCACTTTAGAGCAAAATCATGAAAGATCGATGGA
TGAATGTGGGTCACGAAGATGATGAACTAAAGCCTTACGTGGAGCCACTCCCTGACTACAAGGACCCCGG
GCGGACAGAGCTGATGGTGTCCATGGGTATACACGGGAAGAGATCCAGGACTCGCTGGTGGCCAGAGA
TACAACGAGGTGATGGCCACCTATCTGCTCCTGGGCTACAAGAGCTCCGAGCTGGAAGCGACACCATCA
CCCTGAAACCCCGCCTTCAGTGTCTGACCAATAGCAGCGCCCATCCCCATCCACAAGGTACAGCG
CAGCGTGTGCGCCAATCCCAAGCAGCGGCGCTTACGCGACCAGGCTGGTCTGCCATTCCACCTCTAAT
TCTTACTCTAAGAAGACTCAGAGTAACAACGCAGAAAATAAGCGGCTGAGGAGGACCGGGAGTCAGGGC
GAAAAGCCAGCAGCACAGCCAAGGTGCCTGCCAGCCCTGCCCGGTCTGGAGAGGAAGAAGACCACCC
AACCCCTCCACGAACAGCGTCTCTCCACCAGCACAAATCGAAGCAGGAATTCCCACTTTTGGAGCGG
GCCAGCTCGGCCAGGCTCCATCCAGAATGGCAAAGACAGCACAGCCCCCAGCGTGTCCCTGTTGCCT
CCCCATCCGCCACAACATCAGCAGCAGTGGTGGAGCCCCAGACCAGCTAACTTCCCCGGGGTGTGTC
CAGCCGAAGCACCTTCCATGCTGGCAGCTCCGACAGGTGCGGGACCAGCAGAAATTTGCCCTACGGTGTG
ACCCAGCTCTCCCTTGGCCACAGCCAGGGCCGGCGGGGGCCTCTGGGAGCATCTTCAGCAAGTTCA
CCTCCAAGTTTGTACGCAGGAACCTGAATGAACCTGAAAGCAAAGACCGAGTGGAGACGCTCAGACCTCA
CGTGGTGGGCACTGGCGCAACGACAAAAGAAAAGGAAGATTTCCGGGAGGCCAAGCCCCGCTCCCTCCGC
TTCACGTGGAGTATGAAGACCACGAGCTCCATGGAGCCCAACGAGATGATGCGGGAGATCCGCAAGGTGC
TGGACCGGAACAGCTGCCAGAGCGAGCTGCATGAGAAGTACATGCTGCTGTGCATGCACGGCAGCCGGG
CCACGAGGACTTCGTGCACTGGGAGATGGAGGTGTGCAAACCTGCCGCGGCTCTCTCAACGGGGTTTCA
TTTAAGCGGATATCGGGCACCTCCATGGCTTCAAAAACATTGCCTCAAAAATAGCCAACGAGCTGAAGC
TT

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC210279 protein sequence
Red=Cloning site Green=Tags(s)

MSSARTPLPTLNERDTEQPTLGHLDSPSSKSNMIRGRNSATSADEQPHIGNYRLKKTIGKGNFAKVKLA
 RHILTGKEVAVKIIDKTQLNSSSLQKLFREVRIMKVLNHPNIVKLFEVIETEKLYLVMEYASGGVEFDY
 LVAHGRMKEKEARAKFRQIVSAVQYCHQKFIVHRDLKAENLLLDADMNIKIADFGFSNEFTFGNKLDTFC
 GSPPYAAPELFQGKKYDGPVDVWSLGVILYTLVSGSLPFDGQNLKELRERVLRGKYRIPFYMSTDCENL
 LKKFLILNPSKRGTLEQIMKDRWMNVGHEDDELKPYVEPLPDYKDPRTLMVSMGYTREEIQDSLVGQR
 YNEVMATYLLLGYSSELEGDTITLKPRPSADLTNSSAPSPSHKVQRSVSANPKQRRFSDQAGPAIPTS
 SYSKKTQSNNANRPEEDRESGRKASSTAKVPASPLPGLERKKTTPPTNSVLSTSTNRSRNSPLLER
 ASLGQASIQNGKDSTAPQRPVSPSAHNISSSGGAPDRTNFPRGVSSRSTFHAGQLRQVRDQQLPYGV
 TPASPSGHSQRRGASGSIFSFKTSKFVRRNLNEPEKDRVETLRPHVVGSGGNDKEEFREAKPRSLR
 FTWSMKTTSMEPNEMMREIRKVLANSQSELHEKYMLLCMHGTPGHEDFVQWEMEVCKLPRLSLNGVR
 FKRISGTSMAFKNIASKIANELKL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6689_d05.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_004954

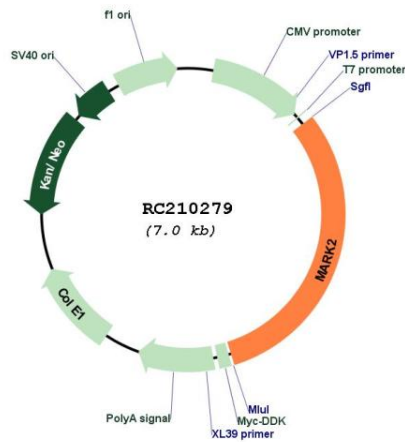
ORF Size: 2172 bp

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](#)

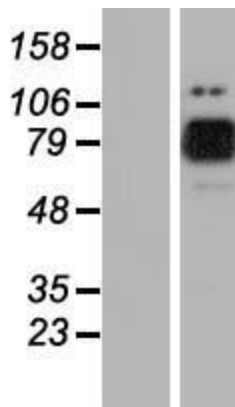
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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.
RefSeq:	NM_004954.5
RefSeq Size:	4556 bp
RefSeq ORF:	2175 bp
Locus ID:	2011
UniProt ID:	Q7KZ17
Cytogenetics:	11q13.1
Domains:	UBA, pkinase, KA1
Protein Families:	Druggable Genome, Protein Kinase
MW:	81.2 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]

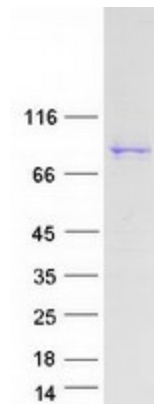
Product images:



Circular map for RC210279



Western blot validation of overexpression lysate (Cat# [LY417631]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210279 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MARK2 protein (Cat# [TP310279]). The protein was produced from HEK293T cells transfected with MARK2 cDNA clone (Cat# RC210279) using MegaTran 2.0 (Cat# [TT210002]).