

Product datasheet for **RG210279**

MARK2 (NM_004954) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MARK2 (NM_004954) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MARK2
Synonyms:	EMK-1; EMK1; PAR-1; Par-1b; Par1b
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide
Sequence:**

>RG210279 representing NM_004954
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTCCAGCGCTCGGACCCCTACCCAGCTGAACGAGAGGGACACGGAGCAGCCACCTTGGGACACC
 TTGACTCCAAGCCAGCAGTAAGTCCAACATGATTCGGGGCCGCAACTCAGCCACCTCTGCTGATGAGCA
 GCCCACATTGAAACTACCGGCTCCTCAAGACATTGGCAAGGGTAATTTTCCAAAGGTGAAGTTGGCC
 CGACACATCTGACTGGGAAAGAGGTAGCTGTGAAGATCATTGACAAGACTCAACTGAACTCTCCAGCC
 TCCAGAAACTATTCGCGAAGTAAGAATAATGAAGTTTTGAATCATCCCAACATAGTTAAATTATTTGA
 AGTGATTGAGACTGAGAAAACGCTCTACCTTGTTCATGGAGTACGCTAGTGGCGGAGAGGTATTTGATTAC
 CTAGTGGCTCATGGCAGGATGAAAGAAAAAGAGGCTCGAGCCAAATTCGCCAGATAGTGTCTGCTGTGC
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 GAACATCAAGATTGCAGACTTTGGCTTCAGCAATGAATCACCTTTGGGAACAAGCTGGACACCTTCTGT
 GGCAGTCCCCCTTATGCTGCCCAAGAACTTCCAGGGCAAAAAATATGATGGACCCGAGGTGGATGTGT
 GGAGCCTAGGAGTTATCCTCTATACACTGGTCAGCGGATCCCTGCCTTTTGATGGACAGAACCTCAAGGA
 GCTGCGGGAACGGGTAAGTACTGAGGGGAAAATACCGTATTCCATTCTACATGTCCACGGACTGTGAAAACCTG
 CTTAAGAAATTTCTATTCTTAATCCCAGCAAGAGAGGCACTTTAGAGCAAAATCATGAAAGATCGATGGA
 TGAATGTGGGTACGAAGATGATGAACTAAAGCCTTACGTGGAGCCACTCCCTGACTACAAGGACCCCGG
 GCGGACAGAGCTGATGGTGTCCATGGGTATACACGGGAAGAGATCCAGGACTCGCTGGTGGCCAGAGA
 TACAACGAGGTGATGGCCACCTATCTGCTCCTGGGCTACAAGAGCTCCGAGCTGGAAGGCGACACCATCA
 CCCTGAAACCCCGGCTTCAGTGTGATCTGACCAATAGCAGCGCCCATCCCCATCCACAAGGTACAGCG
 CAGCGTGTGCGCCAATCCCAAGCAGCGGCTTCAGCGACCAGGCTGGTCTCCTGCCATTCCACCTCTAAT
 TCTTACTTAAGAAGACTCAGAGTAACAACGCAGAAAATAAGCGGCTGAGGAGGACCGGGAGTCAGGGC
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 GCCAGCTCGGCCAGGCTCCATCCAGAATGGCAAAGACAGCACAGCCCCCAGCGTGTCCCTGTTGCCT
 CCCATCCGCCACAACATCAGCAGCAGTGGTGGAGCCCCAGACCGAACAACTTCCCCGGGTGTGTC
 CAGCCGAAGCACCTTCCATGCTGGCAGCTCCGACAGTGGGGACCAGCAGAAATTTGCCCTACGGTGTG
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 CCTCCAAGTTTGTACGCAGGAACCTGAATGAACCTGAAAGCAAAGACCGAGTGGAGACGCTCAGACCTCA
 CGTGGTGGCAGTGGCGCAACGACAAAAGAAAAGGAATTTCCGGAGGCCAAGCCCCGCTCCCTCCGC
 TTCACGTGGAGTATGAAGACCACGAGCTCCATGGAGCCCAACGAGATGATGCGGGAGATCCGCAAGGTGC
 TGGACCGGAACAGCTGCCAGAGCGAGCTGCATGAGAAATACATGCTGCTGTGCATGCACGGCACGCCGGG
 CCACGAGGACTTCGTGACGTGGGAGATGGAGGTGTGCAAACCTGCCGCGGCTCTCTCAACGGGGTTCGA
 TTTAAGCGGATATCGGCCACCTCCATGGCTTCAAAAACATTGCCTCAAAATAGCCAACGAGCTGAAGC
 TT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG210279 representing NM_004954
Red=Cloning site Green=Tags(s)

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MSSARTPLPTLNERDTEQPTLGHLDSPSSKSNMIRGRNSATSADEQPHIGNYRLKKTIGKGNFAKVKLA
RHILTGKEVAVKIIDKTQLNSSSLQKLFREVRIMKVLNHPNIVKLFEVIETEKLYLVMYASGGVEFDY
LVAHGRMKEKEARAKFRQIVSAVQYCHQKFIVHRDLKAENLLLDADMNIKIADFGFSNEFTFGNKLDTFC
GSPPYAAPEL FQ GK KYD GPEVDVWSLGVILYTLVSGSLPFDGQNLKELRERVLRGKYRIPFYMSTDCENL
LKKFLILNPSKRGTLEQIMKDRWMNVGHEDDELKPYVEPLPDYKDPRTLMVSMGYTREEIQDSL VGQR
YNEVMATYLLLLGYKSSELEGDTITLKPRPSADLTNSSAPSPSHKVQRSVSPANPKQRRFSDQAGPAIPTSN
SYSKKTQSNNANRPEEDRESGRKASSTAKVPASPLPGLERKKTTPPTPSTNSVLSTSTNRSRNSPLLER
ASLGQASIQNGKDSTAPQRPVSPSAHNISSSGGAPDRTNFPRGVSSRSTFHAGQLRQVRDQQLPYGV
TPASPSGHSQRRGASGSIFSKFTSKFVRRNLNEPE SKDRVETLRPHVVGSGGNDKEEFREAKPRSLR
FTWSMKTTSMEPNEMMREIRKVL DANSCQSELHEKYMLLCMHGTPGHEDFVQWEMEVCKLPRLSLNGVR
FKRISGTSMAFKNIASKIANELKL
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TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



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:

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: 2803 bp

RefSeq ORF: 2175 bp

Locus ID: 2011

UniProt ID: [Q7KZ17](#)

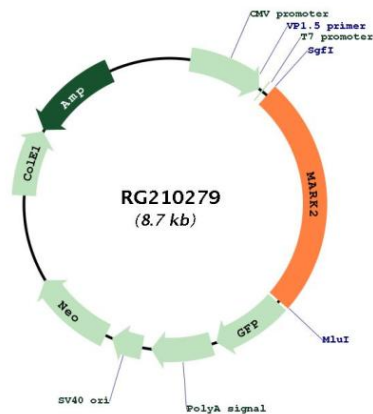
Cytogenetics: 11q13.1

Domains: UBA, pkinase, KA1

Protein Families: Druggable Genome, Protein Kinase

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 RG210279