

Product datasheet for **RG228550**

MARK2 (NM_001163297) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MARK2 (NM_001163297) 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:

>RG228550 representing NM_001163297
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGTCCAGCGCTCGGACCCCTACCCAGCTGAACGAGAGGGACACGGAGCAGCCACCTTGGGACACC
 TTGACTCCAAGCCAGCAGTAAGTCCAACATGATTCGGGGCCGCAACTCAGCCACCTCTGCTGATGAGCA
 GCCCACATTGAAACTACCGGCTCCTCAAGACATTGGCAAGGGTAATTTTGCCAAGGTGAAGTTGGCC
 CGACACATCTGACTGGGAAAGAGGTAGCTGTGAAGATCATTGACAAGACTCAACTGAACTCTCCAGCC
 TCCAGAACTATTCGCGAAGTAAGAATAATGAAGTTTTGAATCATCCCAACATAGTTAAATTATTTGA
 AGTGATTGAGACTGAGAAAACGCTCTACCTTGTTCATGGAGTACGCTAGTGGCGGAGAGGTATTTGATTAC
 CTAGTGGCTCATGGCAGGATGAAAGAAAAAGGGCTCGAGCCAAATTCGCCAGATAGTGTCTGCTGTGC
 AGTACTGTACCAGAAGTTTATTGTCCATAGAGACTTAAAGGCAGAAAACCTGCTCTGGATGCTGATAT
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 CTTAAGAAATTTCTATTCTTAATCCCAGCAAGAGAGGCACTTTAGAGCAAAATCATGAAAGATCGATGGA
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 TACAACGAGGTGATGGCCACCTATCTGCTCCTGGGCTACAAGAGCTCCGAGCTGGAAGGGCAGACCATCA
 CCCTGAAACCCCGGCTTCAGTGATCTGACCAATAGCAGCGCCCATCCCCATCCACAAGGTACAGCG
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 CCTCCAAGTTTGTACGCAGACCTCACGTGGTGGCAGTGGCGGCAACGACAAGAAAAGGAAGAATTTG
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 TGCTGTGCATGCACGGCACGCCGGGCCACGAGGACTTCGTGCAGTGGGAGATGGAGGTGTGCAAACCTGCC
 GCGGCTCTCTCAACGGGGTTCGATTTAAGCGGATATCGGGCACCTCCATGGCCTTCAAAAACATTGCC
 TCCAAAATAGCCAACGAGCTGAAGCTT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG228550 representing NM_001163297
 Red=Cloning site Green=Tags(s)

MSSARTPLPTLNERDTEQPTLGHLDSPSSKSNMIRGRNSATSADEQPHIGNYRLLKKTIGKGNFAKVKLA
 RHILTGKEVAVKIIDKTQLNSSSLQKLFREVRIMKVLNHPNIVKLFEVIETEKTLVMEYASGGVEFDY
 LVAHGRMKEKEARAKFRQIVSAVQYCHQKFIVHRDLKAENLLDADMNIKIADFGFSNEFTFGNKLDTF
 GSPPYAAPELFGQKKYDGPVEDVWVSLGVILYTLVSGSLPFDGQNLKELRERVLRGKYRIPFYMSTDCENL
 LKKFLILNPSKRGTLQIMKDRWMNVGHEDDELKPYVEPLPDYKDPRTLMVSMGYTREEIQDSL VGQR
 YNEVMATYLLLGYSSELEGDTITLKPRPSADLTNSSAPSPSHKVQSVSANPKQRRFSDQAGPAIPTSN
 SYSKKTQSNNAENKRPEEDRESGRKASSTAKVPASPLPGLERKKTTPPTSTNSVLSTSTNRSRNSPLLER
 ASLGQASIQNGKDSTAPQRVPVSPSAHNISSSGGAPDRTNFPRGVSSRSTFHAGQLRQVRDQQLPYGV
 TPASPSGHSQRRGASGSIFSKFTSKFVRRPHVVGSGNDKEEKFREAKPRSLRFTWSMKTSSMEPNE
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 SKIANELKL

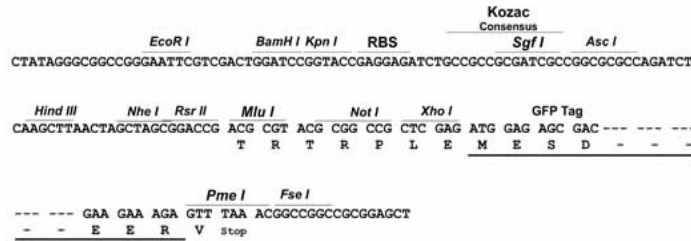
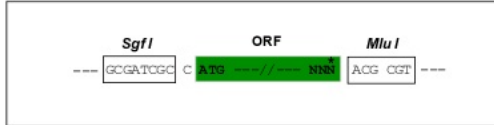
TRTRPLE - GFP Tag - V

Restriction Sites:

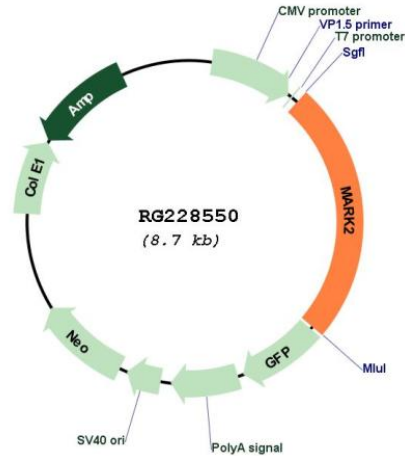
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_001163297

ORF Size: 2127 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_001163297.2](#)

RefSeq Size: 4511 bp

RefSeq ORF: 2130 bp

Locus ID: 2011

UniProt ID: [Q7KZ17](#)

Cytogenetics: 11q13.1

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-associating proteins. The protein localizes to cell membranes. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2009]