

## Product datasheet for **RG226138**

### **MARK3 (NM\_001128918) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MARK3 (NM_001128918) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MARK3
Synonyms:	CTAK1; KP78; Par-1a; PAR1A; VIPB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide  
Sequence:

>RG226138 representing NM\_001128918  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGCATCGCC**

ATGTCCACTAGGACCCCATTTGCCAACGGTGAATGAACGAGACACTGAAAACACACGTCACATGGAGATG  
GGCGTCAAGAAGTTACCTCTCGTACCAGCCGCTCAGGAGCTCGGTGTAGAACTCTATAGCCTCCTGTGC  
AGATGAACAACCTCACATCGGAACTACAGACTGTTGAAAAAATCGGCAAGGGGAATTTTGCAAAAAGTA  
AAATTGGCAAGACATATCCTTACAGGCAGAGAGTTGCAATAAAAATAATTGACAAAACCTCAGTTGAATC  
CAACAAGTCTACAAAAGCTCTTCAGAGAAGTAAGAATAATGAAGATTTTAAATCATCCCAATATAGTGAA  
GTTATTGGAAGTCATTGAAACTGAAAAACACTCTACCTAATCATGGAATATGCAAGTGGAGGTGAAGTA  
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CTGCAGTTCAATACTGCCATCAGAAACGGATCGTACATCGAGACCTCAAGGCTGAAAATCTATTGTTAGA  
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ACGTTTTGTGGCAGTCTCCATACGCAGACCTGAGCTCTCCAGGGCAAGAAATATGACGGGCCAGAAG  
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CCTAAAGGAAGTGAAGAGAGAGATTAAGAGGGAAATACAGAATTCCTTCTACATGTCTACAGACTGT  
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ACAGGTGGATCAATGCAGGGCATGAAGAAGATGAACTCAAACATTTGTTGAACAGAGCTAGACATCTC  
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GTGATCCAGTTCTAGCAGCAATCTTTCACCTGCTAAGTTAGGCCGAGCAGTGATCTCAACAACAGTAC  
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CATGCTGGACCAGCTATTCCTTCTGTTGTGGCGTATCCGAAAAGGAGTCAGACCAGCACTGCAGATAGTG  
ACCTCAAAGAAGATGGAATTTCTCCCGGAAATCAAGTGGCAGTCTGTTGGAGGAAAGGGAATTGCTCC  
AGCCAGTCCCATGCTTGGGAATGCAAGTAATCCTAATAAGGCGGATATTCCTGAACGCAAGAAAAGCTCC  
ACTGTCCCTAGTAGTAACACAGCATCTGGTGGAAATGACACGACGAAATACTTATGTTGCAAGTGAAGAA  
CTACAGCTGATAGACACTCAGTGATTGAGAATGGCAAAGAAAACAGCACTATTCCTGATCAGAGAACTCC  
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AGCCTCGATCCCTACGCTTACCTGGAGCATGAAAACCACTAGTTCAATGGATCCCGGGGACATGATGCG  
GGAAATCCGCAAAGTGTGGACGCCAATAACTGCGACTATGAGCAGAGGGAGCGCTTCTTGCTCTTCTGC  
GTCCACGGAGATGGGCACGGGAGAACCTCGTGCAGTGGGAAATGGAAGTGTGCAAGCTGCCAAGACTGT  
CTCTGAACGGGGTCCGGTTTAAGCGGATATCGGGGACATCCATAGCCTTCAAAAATATTGCTTCAAAAAT  
TGCCAATGAGCTAAAGCTG

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

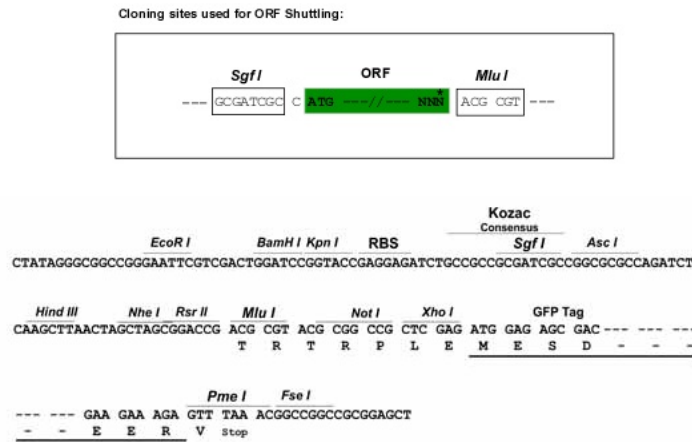
**Protein Sequence:** >RG226138 representing NM\_001128918  
 Red=Cloning site Green=Tags(s)

MSTRTP LPTVNERDTENHTSHGDGRQEVTSRTSRSGARCRNSIASCADEQPHIGNYRLLKTI GKGNFAKV  
 KLARHILTGREVAIKIIDKTQLNPTSLQKLFREVRIMKILNHPNIVKLFVIEIETEKTLYLIMEYASGGEV  
 FDYLV AHGRMKEKEARSKFRQIVSAVQYCHQKRIVHRDLKAENLLLDADMNIKIADFGFSNEFTVGGKLD  
 TFCGSPPYAAPELFGGKKYDGPEDVWVSLGVILYTLVSGSLPFDGQNLKELRERVLRGKYRIPFYMSTDC  
 ENLLKRFLV LNP I KRGTLEQIMKDRWINAGHEEDELKPFVEPELDISDQKRIDIMVGMGYSQEEIQESLS  
 KMKYDEITATYLLLRKSSSELDASDSSSSNLSLAKVRPSSDLN NSTGQSPHHKVQRSVFSQKQRRYS  
 HAGPAIPSVVAYPKRSQTSTADSDLKEDGISSRKS SSGSAVGGKIAPASPLGNASNPNKADIPERKSS  
 TVPSSNTASGGMTRRNTYVCSERTTADRHSVIQNGKENSTIPDQRTPVASTHSISSAATPDRIRFPRGTA  
 SRSTFHGQPRERTATYNGPPASPSLSHEATPLSQTRSRGSTNLF SKLTSKLTRRNSFRFIKRLPTEYE  
 RNGRYEGSSRNVAEQDENKEAKPRSLRFTWSMKTSSMDPGDMMREIRKVL DANNC DYEQRERFLLC  
 VHGDGHAENLVQWEMEVCKLPRLSLNGVRFKRISGTSIAFKNIASKIANELKL

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001128918

**ORF Size:** 2259 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\\_001128918.1](#), [NP\\_001122390.1](#)

**RefSeq Size:** 3546 bp

**RefSeq ORF:** 2262 bp

**Locus ID:** 4140

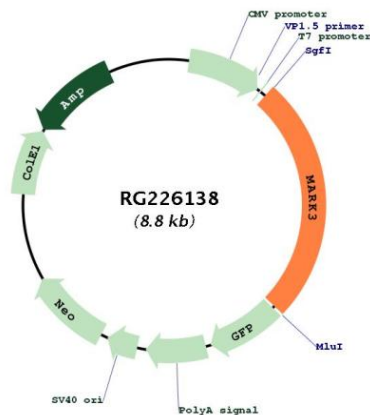
**UniProt ID:** [P27448](#)

**Cytogenetics:** 14q32.32-q32.33

**Protein Families:** Druggable Genome, Protein Kinase

**Gene Summary:** The protein encoded by this gene is activated by phosphorylation and in turn is involved in the phosphorylation of tau proteins MAP2 and MAP4. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2011]

**Product images:**



Circular map for RG226138