

Product datasheet for **MG227363**

Mark3 (NM_021516) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mark3 (NM_021516) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Mark3
Synonyms:	1600015G02Rik; A430080F22Rik; C-TAK1; Emk2; ETK-1; ETK1; MPK10
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG227363 representing NM_021516
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCCACTAGGACCCCTTTGCCAACGGTGAATGAACGAGACACTGAAAACCACATTTACATGGAGACG
 GGAGGCAAGAAGTCACCTCCCGCACCGGGCGCTCTGGAGCTCGGTGTAGAACTCAATAGCTTCTGTGC
 AGATGAACAGCCTCACATCGGAACTACAGACTGTTGAAAAAATCGGCAAGGGGAACTTTGCAAAAGTG
 AAATTGGCGAGACACATCCTCACAGGCCGAGAGTTGCAATAAAAATAATTGACAAAACAGTTGAATC
 CAACAAGTCTACAAAAGCTTTCAGAGAAGTAAGAATAATGAAGATTTTAAATCACCCAAACATAGTGAA
 GTTGTTCGAAGTCATTGAAACGGAAAAACTCTCTACTTAATCATGGAATATGCAAGTGGAGGTGAAGTA
 TTTGACTATTTGGTTGCACATGGAAGAATGAAGGAAAAAGAAGCAAGAGCTAAATTTAGACAGATTGTTT
 CCGCAGTACAGTATTGCCACAAAACGGATTGTTACAGAGACCTCAAGGCTGAAAATCTGTTATTAGA
 TGGCGATATGAACATTAATAAGCAGATTTTGGTTTTAGCAATGAATTTACTGTTGGCAGTAAACTAGAC
 ACGTTTTGTGGTGTCTCCATATGCAGCCCTGAGCTCTCCAGGGCAAGAAGTATGACGGGCCAGAAG
 TCGACGTGTGGAGCCTCGGTGTCTCTACACCCTAGTCAGTGGGTCGCTTCCCTTTGATGGTCAAAA
 CCTGAAGGAACTGAGAGAGAGACTCCCGGGGAAGTACAGAATCCCTTTCTACATGTCCACAGACTGC
 GAGAACCTTCTCAAGCGCTTCTGGTGTGAACCCAGTTAAACGGGGCACTCTCGAGCAAATCATGAAGG
 ACAGGTGGATCAATGCAGGCCATGAGGAGGATGAGCTTAAGCCATTTGTTGAACCAGAAGTAGACATCTC
 AGACCAGAAGAGAATAGATATTAGTGGGAATGGGATATTCCCAAGAAGAAATCAAGAATCTCTTAGC
 AAAATGAAATACGATGAAATCACAGCTACTTACTTGTACTGGGAGGAAATCTGCAGAGCTGGACGCTA
 GTGACTCCAGTTCTAGCAGCAACCTTTCACTTGTAAAGTGCAGGCAACAGTACCTCAGCAATAGCAC
 TGGCCAGTCTCCTCATCACAAAGGGCAGAGAAGTGTTCCTCAAGTCAGAAGCAGAGACGGTACAGTGAC
 CACGCTGGACCAGCTATTCTTCAGTTGTGGCATATCCAAGAGGAGTCAGACCAGCACTGCAGATAGTG
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 TGCCAGTCCCATGCTTGGGAATGCAGGCAATCCAATAAAGCCGATATCCCTGAGCGCAAGAAAAGCCCT
 GCTGTGCCAGTAGTAACACAGCATCTGGTGGGATGACACGGCGGAACACTTACGTTTGCAGCGAGAGAT
 GTGCAGCAGACAGACATTCTGTGATTGAGAACGGCAAAGAAAACAGCGCTATTCCAGATGAGAGAACTCC
 AGTTGCTTCAACCACAGTATTAGCAGTGCACCACCCAGATCGCATCCGCTTTCGAAGGGGCACAGCC
 AGCCGTAGCACTTCCATGGCCAACCTCGGGAGCGGCAACCGCAACATATAATGGCCACCTGCCTCAC
 CCAGCTTGTCCCATGAAGCCACACCGCTGTCTCAGACTCGAAGCCGAGGTTCCACTAATCTTTTTAGTAA
 ATTAACCTCCAAACTCACAAGAAGACTTCCAACCTGAATATGAGAGGAACGGGAGATATGAGGGCTCAAGT
 CGCAATGTGTCTTCAGAGCAGAAGGATGAGAACAGAGAGGCCAAGCCCGCTCCCTGCGCTTACCTGGA
 GCATGAAGACCACGAGCTCCATGGACCCAGTGACATGATGCGGGAGATCCGCAAGGTGTGGACGCCAA
 TAACTGCGACTACGAGCAGAGGGAGCGCTTCTGCTCTTCTGTGTCCATGGCGACGGGCACGCAGAGAAC
 CTGGTACAGTGGGAAATGGAAGTCTGTAAGCTGCCAAGACTGTCTCTGAATGGAGTCCGGTTTAAGCGGA
 TATCAGGGACATCCATAGCTTTCAAAAATATTGCTTCCAAAATTGCCAATGAGCTAAAGCTG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG227363 representing NM_021516
 Red=Cloning site Green=Tags(s)

MSTRTPPLPTVNERDTENHISHGDGRQEVTSRTGRSGARCRNSIASCADQPHIGNYRLLKTIKGNFAKV
 KLARHILTGREVAIKIIDKTQLNPTSLQKLFREVRIMKILNHPNIVKLFVIEETEKTLYLIMEYASGGEV
 FDYLVAHGRMKEKEARAKFRQIVSAVQYCHQKRIVHRDLKAENLLLDADMNIKIADFGFSNEFTVGSKLD
 TFCGSPPYAAPELFGGKKYDGPEDVWSLGVILYTLVSGSLPFDGQNLKELRERVLRGKYRIPFYMSTDC
 ENLLKRFLVLPVNRGTLEQIMKDRWINAGHEEDELKPFVEPELDISDQKRIDIMVGMGYSQEEIQESLS
 KMKYDEITATYLLLGRKSAELDASDSSSSNLAKVRPNSDLNSTGQSPHHKGRQSVSSSQKRRYS
 HAGPAIPSVVAYPKRSQTSTADSDLKEDGIPSRKSSSSAVGGKIAPASPLGNAGNPNKADIPERKKS
 AVSSNTASGGMTRRNTYVCSERCAADRHSVIQNGKNSAIPDERTPVASTHSISSATTPDRIRFPRGTA
 SRSTFHGQPRERTATYNGPPASPSLSHEATPLSQTRSRGSTNLF SKL TSKL TRRLPTEYERNGRYEGSS
 RNVSSSEQDENREAKPRSLRFTWSMKTSSMDPSDMMREIRKVL DANNC DYEQRERFLLCVHGDGHAEN
 LVQWEMEVCKLPRLSLNGVRFKRISGTSIAFKNIASKIANELKL

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_021516

ORF Size: 2232 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_021516.4](#), [NP_067491.2](#)

RefSeq Size: 3388 bp

RefSeq ORF: 2235 bp

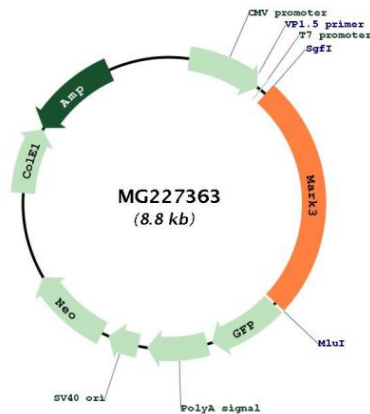
Locus ID: 17169

UniProt ID: [Q03141](#)

Cytogenetics: 12 F1

Gene Summary: Serine/threonine-protein kinase. Involved in the specific phosphorylation of microtubule-associated proteins for MAPT/TAU, MAP2 and MAP4. Phosphorylates CDC25C. Regulates localization and activity of some histone deacetylases by mediating phosphorylation of HDAC7, promoting subsequent interaction between HDAC7 and 14-3-3 and export from the nucleus. Negatively regulates the Hippo signaling pathway and antagonizes the phosphorylation of LATS1. Cooperates with DLG5 to inhibit the kinase activity of STK3/MST2 toward LATS1.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG227363