

Product datasheet for **MR215783**

Mark1 (NM_145515) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mark1 (NM_145515) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mark1
Synonyms:	AW491150; B930025N23Rik; Emk3; mKIAA1477; mPar-1c; Par-1c
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>MR215783 representing NM_145515
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCGGCGCGGACGCCATTGCCACGGTGAACGAGCGGGACACGGAGAACCATACGTCTGTGGATGGCT
 AACTGAAACACATATCCCGCCTGCCAAGTCAAGTAGCAGACAGAACCCTCCCGGTGTAGAAACTCCAT
 TACGTCAGCGACAGATGAACAGCCTCACATCGAAATTACCGCTTACAGAAAACAATAGGAAAGGAAAT
 TTTGCCAAAGTGAATTTGGCAAGACATGTTCTAACAGGTAGAGAGGTGCGTGTGAAAATAATAGACAAAA
 CTCAGCTAAACCTACCAGTCTACAGAAGTTGTTCCGAGAAGTACGAATAATGAAGATACTGAACCATCC
 TAACATAGTGAACTGTTTGAAGTTATTGAAACAGAGAAGACACTCTATTTGGTCATGGAATACGCAAGT
 GGGGGTGAAGTCTTTGATTACTTAGTTGCCACGGAAGAATGAAAGAGAAAGAGGCCCGTCCAAATTCA
 GGCAGATTGTATCTGCTGTACAGTATTGCCATCAAAAATGCATTGTTACCGTGATCTTAAGGCTGAAAA
 CCTTCTCCTTGATGCTGATATGAATATTTAAATGCTGACTTTGGTTTTAGCAATGAATTCACAGTGGGG
 AACAAATTGGACACATTCTGTGGAAGCCCGCCTTATGCTGCCCCCGAGCTTTTCCAAGGCAAGAAGTACG
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 GCTTGATCTCAGCGATGCAAAAAGAATAGACATTATGGTCACCATGGGTTTTGCACGAGATGAAATCAAT
 GATGCCTTAGTAAGTCAGAAATATGATGAAGTTATGGTACTTACATCCTCTAGGTAGAAAACACCCCG
 AGTTCGAAGGTGGTGAGTCACTGTCCAGTGGGAGCTTGTGCCAGCGGTGCGGGCCGAGCAGCGACCTGAA
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 CGCTTCAGCGACCACGCCGGCCCTCCATCCCCCTGCCGTCTCATAACCAAGAGGCCTCAGGCCAACCA
 GCGTGGAGAGTGAACAGAAGGAGGAGTGGGGCAAAGACACAGCCCGCAGACTTGGCAGCACACAGTGGG
 ATCAAAGAGCGAAGTACAGCCAGCCCTTGGTGGGGCCAGACAGGAAAAAGTCCACAGCGAGCCCAAGT
 AACACGTATATTCTGGCGGTAGCATGGCGAGGAGGAATACGTATGTGTGTGAGAGGAGCACAGACCGGT
 ACGCAGCCTTGCAGAATGGAAGAGACAGCAGCCTTACAGAGATGTCTGCCAGCAGCATGTCCTCGGCGGG
 CTCCACCGTGGCCTCTGCTGGCCCTCAGCACGTCCCCGCCACCAGAAATCTATGTCAACCTCTGGCCAC
 CCTATAAAAGTTACACTGCCAACCATTAAGATGGCTCAGAAGCGTATCGGCCTGGTGCAGCTCAGAGAG
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 CCGGCCTCCCCATCCCACGAAACGGGTGCGTTTGCACATGCCAGAAGGGGCACGTCAACCGGCATCATCA
 GCAAAATCACCTCCAAGTTCGTCCGACGGGATCCAAGTGAAGGCGAAGCCAGCGGAGAGCCGACACAGC
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 CGCTTCAAGCGAATATCTGGGACATCTATTGCCCTTAAGAACATTGCATCCAAAATAGCAATGAGCTTA
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR215783 representing NM_145515
 Red=Cloning site Green=Tags(s)

MSARTPLPTVNERDTENHTSV DGYTETHIPPAKSSSRQNLPRCRNSITSATDEQPHIGNYRLQKTIGKGN
 FAKVKLARHVL TGREVA VKIIDKTQLNPTSLQKLFREVRIMKILNHPNIVKLFEVIETEKTL YLVMEYAS
 GGEVFDYLVAHGRMKEKEARAKFRQIVSAVQYCHQKCI VHRDLKAENLLLDADMNIKIADFGFSNEFTVG
 NKLDTF CGSPPYAAPELFQGKKYDGPEDVWSLGVILYTLVSGSLPFDGQNLKELRERVLRGKYRIPFYM
 STDCENLLKKLLVLNPIKRGSL EQIMKDRWMNVGHEEEELKPYSEPELDLSDAKRIDIMVTMGFARDEIN
 DALVSQKYDEV MATYI LLGRKPPEFEGGESLSSGSLCQRSRPSSDLNNS TLQSPAHLKVQRSISANQKQR
 RFSDHAGPSIPPAVS YTKRPQANSVESEQKEEWGKDTARRLGSTTVGSKSEVTASPLVGPDRKKSTASPS
 NNVYSGGSMARRNTYVCERSTDRYAALQNGRDSSLTEMSASSMSSAGSTVASAGPSARPRHQKSMSTSGH
 PIKVTLP TIKDGSEAYRPGAAQVPAASPSAHSISASTPDRTFRFPRGSSSRSTFHGEQLRERRSAAYNGP
 PASPSHETGAFAHARRGTSTGIISKITSKFVRRDPSEGEASGRADTARGSSGDPKERDKDEGKEAKPRSL
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 RFKRISGTSIAFKNIASKIANELKL

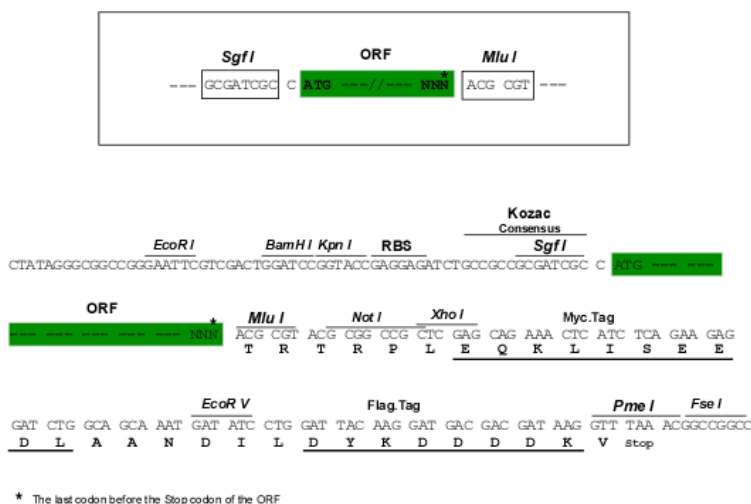
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9009_f05.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shuttling:



ACCN: NM_145515

ORF Size: 2385 bp

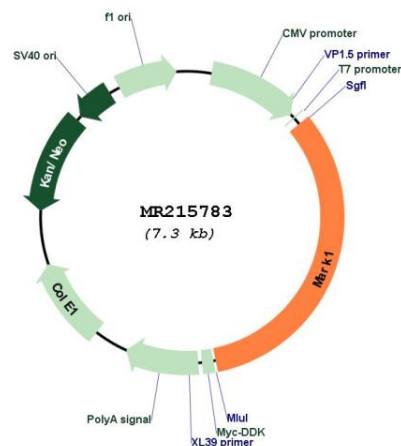
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_145515.2, NP_663490.2</u>
RefSeq Size:	4565 bp
RefSeq ORF:	2388 bp
Locus ID:	226778
UniProt ID:	<u>Q8VHJ5</u>
Cytogenetics:	1 H5
MW:	88.8 kDa
Gene Summary:	Serine/threonine-protein kinase (By similarity). Involved in cell polarity and microtubule dynamics regulation. Phosphorylates DCX, MAP2 and MAP4. Phosphorylates the microtubule-associated protein MAPT/TAU (By similarity). Involved in cell polarity by phosphorylating the microtubule-associated proteins MAP2, MAP4 and MAPT/TAU at KXGS motifs, causing detachment from microtubules, and their disassembly. Involved in the regulation of neuronal migration through its dual activities in regulating cellular polarity and microtubule dynamics, possibly by phosphorylating and regulating DCX. Also acts as a positive regulator of the Wnt signaling pathway, probably by mediating phosphorylation of dishevelled proteins (DVL1, DVL2 and/or DVL3).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR215783

