

Product datasheet for **MC221734**

Mark1 (NM_145515) Mouse Untagged Clone

Product data:

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



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Fully Sequenced ORF: >MC221734 representing NM_145515
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTCGGCGCGGACGCCATTGCCACGGTGAACGAGCGGGACACGGAGAACCATACGTCTGTGGATGGCT
 AACTGAAACACATATCCCGCTGCCAAGTCAAGTAGCAGACAGAACCTTCCCGGTGTAGAACTCCAT
 TACGTCAGCGACAGATGAACAGCCTCACATCGAAATTACCGTTACAGAAAAAATAGGAAAGGAAAT
 TTTGCCAAAGTAAAATTGGCAAGACATGTTCTAACAGGTAGAGAGGTGCGTGTGAAAATAATAGACAAAA
 CTCAGCTAAACCTACCAGTCTACAGAAGTTGTTCCGAGAAGTACGAATAATGAAGATACTGAACCATCC
 TAACATAGTAAAAGTGTGAAATATTGAAACAGAGAAGACACTCTATTTGGTCATGGAATACGCAAGT
 GGGGGTGAAGTCTTTGATTACTTAGTTGCCACGGAAGAATGAAAGAGAAAGAGGCCCGTCCAAATTC
 GGCAGATTGTATCTGCTGTACAGTATTGCCATCAAAAATGCATTGTTACCGTGATCTTAAGGCTGAAA
 CCTTCTCCTTGATGCTGATATGAATATTAATAATGCTGACTTTGGTTTTAGCAATGAATTCACAGTGGG
 AACAAATTTGACACATTCGTGGAAAGCCCGCTTATGCTGCCCGGAGCTTTTCCAAAGGCAAGAAGTACG
 ATGGGCCAGAAGTGGATGTGTGGAGTCTGGGCGTCATTCTACACGCTGGTCAGTGGCTCGCTGCCGTT
 TGATGGCCAGAATCTAAAGGAACTTCGGGAGCGAGTCTTCGAGGGAAGTACCGCATCCCCTTCTACATG
 TCCACAGACTGTGAGAATCTCCTGAAGAACTGTTAGTGTGAATCCCATAAAGCGGGCAGCCTGGAGC
 AAATAATGAAAGACCGATGGATGAATGTTGGTCATGAGGAAGAAGAGCTAAAGCCGACTCTGAGCCTGA
 GCTTGATCTCAGCGATGCAAAAAGAATAGACATTATGGTCACCATGGGTTTTGCACGAGATGAAATCAAT
 GATGCCTTAGTAAAGTCAAAAATATGATGAAGTTATGGCTACTTACATCCTCTAGGTAGAAAACACCCCG
 AGTTCGAAAGTGGTGAATCACTGTCCAGTGGGAGCTTGTGCCAGCGGTGCGGGCCGAGCAGCGACTGAA
 CAACAGCACCCCTTCAGTCGCTGCTCACCTGAAGGTCCAGCGGAGCATCTCGGCCAACCAAGCAGAGG
 CGCTTCAGCGACCACGCCGCCCTCCATCCCCCTGCCGTCTCATACACCAAGAGGCTCAGGCCAACCA
 GCGTGGAGAGTGAACAGAAGGAGGAGTGGGGCAAAGACACAGCCCGCAGACTTGGCAGCACCACAGTGGG
 ATCAAAGAGCGAAGTACAGCCAGCCCTTGGTGGGGCCAGACAGGAAAAAGTCCACAGCGAGCCCAAGT
 AACACGTATATTCTGGCGGTAGCATGGCGAGGAGGAATACGTATGTGTGTGAGAGGAGCACAGACCGGT
 ACGCAGCCTTGCAGAATGGAAGAGACAGCAGCCTTACAGAGATGTCTGCCAGCAGCATGCTCTCGGCGG
 CTCCACCGTGGCCTCTGCTGGCCCCTCAGCACGTCCCCGCCACCAGAAATCTATGTCAACCTCTGGCCAC
 CCTATAAAAGTTACACTGCCAACCATTAAGATGGCTCAGAAGCGTATCGGCCTGGTGCAGCTCAGAGAG
 TGCTGTGCTTCTCCGCTGCTCACAGCATCAGTGCCAGCACTCCAGACAGGACCCGCTTCCCCCGAGG
 GAGCTCCAGCCGAAGCACTTTCCATGGGGAACAGCTCCGAGAGCGGCGCAGCGCGGCTTACAACGGACCA
 CCGGCCTCCCCATCCCACGAAACGGGTGCGTTTGACATGCCAGAAGGGGCACGTCAACCGGCATCATCA
 GCAAAATCACCTCCAAGTTCGTCCGAGGGATCCAAGTGAAGGCGAAGCCAGCGGAGAGCCGACACAGC
 CAGAGGTTTCATCGGGAGATCCCAAAGAGAGAGACAAGGACGAGGGCAAAGAGGCCAAGCCCGCTCCCTG
 CGCTTACCTGGAGCATGAAGACCAGGACTCCATGGACCCCAACGACATGCTGAGGGAGATCCGCAAGG
 TGCTGGATGCCAACCTGTGACTATGAGCAGAAAAGAGAGGTTCTGCTCTTCTGCGTTCACGGAGACGC
 TCGGCAGGACGCCTCGTACAGTGGGAGATGGAGGTCTGCAAGTTGCCTCGGCTCACTCAACGGGGTC
 CGCTTCAAGCGAATATCTGGGACATCTATTGCCTTTAAGAATTCATCCAAAATAGCAATGAGCTTA
 AGCTG**TAA**

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-Mlul
ACCN: NM_145515
Insert Size: 2388 bp

OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<ol style="list-style-type: none">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_145515.2 , NP_663490.2
RefSeq Size:	4565 bp
RefSeq ORF:	2388 bp
Locus ID:	226778
UniProt ID:	Q8VHJ5
Cytogenetics:	1 H5
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]