

Product datasheet for **MC221332**

Mark4 (NM_172279) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mark4 (NM_172279) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Mark4
Synonyms:	2410090P21Rik; C79806; Mark11
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >MC221332 representing NM_172279
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCCTCGAGGACGGCGCTGGCCCCGGGCAACGATCGAAACTCGGACACGCATGGCACATTGGGCAGTG
 GACGATCTTCGGACAAAGGGCCGCTCCTGGTCCAGCCGTTCCCTGGGTGCCGTTGCCGAACTCTATCGC
 TTCTGCCTGAGGAACAACCCATGTGGGCAACTATAGGCTGCTAAGGACCATCGGGAAGGGCAACTTC
 GCCAAAGTCAAGCTGGCTCGGCATATCCTCACGGGCCGGGAGGTCGCTATTAAGATCATTGATAAGACCC
 AGCTGAACCCAGTAGCTTGAGAAAGCTGTTGAGAGAAGTCCGAATTATGAAGGGACTCAACACCCCAA
 CATCGTGAAGCTTTTGGAGTGATAGAGACGGAGAAGACGCTATACCTGGTGATGGAATACGCTAGCGCA
 GGAGAAGTGTGGTACTACCTCGTGTGCGACGGCCGCATGAAGGAGAAGGAGGCTCGAGCCAAGTCCGGC
 AGATCGTGTGAGCCGTGCACTACTGTATCAGAAGAATGTACACAGGGATCTAAAGGCTGAAAACCT
 GTTGCTGGATGCCGAGGCCAACATCAAAATCGCCGACTTCGGCTTCAGCAATGAGTTCACGCTGGGCTCC
 AAGCTGGACACCTTCTGTGGGAGCCCCCATACGCCGCCAGAGCTGTTCCAGGGAAGAAGTATGATG
 GGCCAGAGGTGGACATCTGGAGCCTGGGTGTCATCCTGTACACGCTGGTACGCGGCTCCCTGCCCTTCGA
 TGGGCACAACCTCAAGGAGCTGCGGGAGCGAGTCTCAGAGGAAAGTACCGGGTCCCTTCTACATGTCT
 ACAGACTGCGAGAGCATTCTGCGGAGATTTCTGGTGCTGAACCCCGAAAACGCTGTACTCTGGAGCAAA
 TCATGAAAGACAAATGGATCAACATCGGCTATGAGGGTGAAGGAGTGAAGCCATACACGGAGCCTGAGGA
 GGACTTCGGGGACACCAAGAGAATTGAGGTGATGGTGGGTATGGGCTACACACGGGAAGAATCAAAGAG
 GCCTTGACCAACCAGAAGTACAACGAGGTGACCGCCACCTACCTCCTGCTGGGCAGGAAGACTGAGGAGG
 GTGGGGACCGGGTGCCTCAGGGCTGGCCCTGGCACGGGTGCGGGCGCCAGCGACACCAACCGGGC
 AAGCTCCAGCAAAGGCAGCAGCCACAACAAGGGCAACGGGCTTCTTCCACCTACCACCGCCAGCGC
 CGTCACAGTGACTTCTGTGGCCCTCCCTGCCCGCTGCACCCGAAGCGAGCCCAACAGCACGGGAG
 ACACGGAGCTCAAAGAAGAGCGGATGCCGGTTCGGAAAGCGAGCTGCAGTGCAGTGGGCAGTGGAAAGTCG
 AGGCTTGCCTCCAGCCCCATGGTCAGCAGTGCACCAACCCCAATAAGGCAGAGATCCCTGAGCGG
 CGGAAGGACAGCACTAGCACCCCTAACAACTCCCCCAGCATGATGACCCGAAGAAACACCTATGTGT
 GCACAGAGCGACCAGGATCTGAACGCCCTCCTTGTGCCAAATGGCAAAGAAAATAGCTCCGGTACCTC
 GCGGGTGCCTGCCTCGCTTCCAGTCATAGCCTGGCTCCCCGTGAGCGAGCGGAGCCGCTGGCT
 CGGGGCTCCACCATCCGACGACCTTCCATGGGGCCAGGTCCGAGACCGCGGGCAGGGAGCGGGAGTG
 GCGGGGTGTGCAGAATGGACCCCGAGCCTCACCCACGCTTGCCACAGAGCCGCACCCCTGCCCTCCGG
 GCGGCCTCGCCCCACCACCAACCTTCCACCAAGCTGACCTCAAACCTGACCCGAAGGGTACAGAGCGAA
 CCTGAGAGAATCGGGGACCTGAGGTACAAGTTGCCATCTACCTGGGATAAAACGAAACCGCCCCCA
 GGCTGCTCCGATCCCTGGAGTGTGAAGCTGACCAGCTCGCGACCTCCTGAGGCCCTGATGGTGCCCT
 GCGACAGGCCACAGCGGCCGCCGCTGCCGGTGGCCAGCCGACGCCGTTCTGCTGGCCTGCCTGCAC
 GGGGTGCGGGCGGGCCGAGCCCTGTCCATTTGAAAGTGGAGGTGTGCCAGCTGCCCGGCCCGGCC
 TCAGGGGCGTCTTCCGCGGTGTGGCGGCACCGCCCTGGCCTTCCGACCCCTCGTACCCGCATCTC
 CAACGACCTCGAACT**TGA**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_172279
Insert Size: 2259 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_172279.1 , NP_758483.1
RefSeq Size:	2259 bp
RefSeq ORF:	2259 bp
Locus ID:	232944
UniProt ID:	Q8CIP4
Cytogenetics:	7 A3
Gene Summary:	Serine/threonine-protein kinase (By similarity). Phosphorylates the microtubule-associated protein MAPT/TAU (By similarity). Also phosphorylates the microtubule-associated proteins MAP2 and MAP4 (By similarity). Involved in regulation of the microtubule network, causing reorganization of microtubules into bundles (By similarity). Required for the initiation of axoneme extension during cilium assembly (By similarity). Regulates the centrosomal location of ODF2 and phosphorylates ODF2 in vitro (By similarity). Plays a role in cell cycle progression, specifically in the G1/S checkpoint (By similarity). Reduces neuronal cell survival (By similarity). Plays a role in energy homeostasis by regulating satiety and metabolic rate (PubMed:22992738). Promotes adipogenesis by activating JNK1 and inhibiting the p38MAPK pathway, and triggers apoptosis by activating the JNK1 pathway (PubMed:24989893). Phosphorylates mTORC1 complex member RPTOR and acts as a negative regulator of the mTORC1 complex, probably due to disruption of the interaction between phosphorylated RPTOR and the RAGA/RRAGC heterodimer which is required for mTORC1 activation (By similarity).[UniProtKB/Swiss-Prot Function]