

Product datasheet for **SC127474**

MARK1 (AK098103) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MARK1 (AK098103) Human Untagged Clone
Tag:	Tag Free
Symbol:	MARK1
Synonyms:	MARK; Par-1c; Par1c
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >NCBI ORF sequence for AK098103, the custom clone sequence may differ by one or more nucleotides

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ACCTTCACCCATGGTCCGGAGAGCCTAGCGGGGCTCGCCACCGCCTCCCGGCTCCCCTCCACGCCTCAT
CCTGCCAGCTCGCCGCCCCGCCAGCGCCGGGCAACCGCTCGCCGAAGCCCTCCCTCGTTACTGTCCG
CATACCCCGGCGGCCGCCCGCGGGAAGCGGCTCCCCCGCACACAGCCCGGCCGGCGAGACCCCGGCCA
GACCCCGCTGCCCGCACAAAATGTCGGCCCGGACGCCATTGCCGACGGTGAACGAGCGGGACACGGAAAA
TCATACATCTGTGGATGGATATACTGAACCACACATCCAGCCTACCAAGTCGAGTAGCAGACAGAACATC
CCCCGGTGTAGAACTCCATTACGTGAGCAACAGATGAACAGCCTCACATTGGAAATTACCGTTTACAAA
AAACAATAGGGAAGGAAATTTTGCCAAAGTCAAATTGGCAAGACACGTTCTAACTGGTAGAGAGTTGC
TGTGAAAATAATAGACAAAACCTAGCTAAATCCTACCAGTCTACAAAAGGTATTTAATTAATTAATAAG
TAATTAATGTGAGTTTATCATTAAATATGTGATGTTCTGTAATAATCAGTCATTCTAAATTTTCTATTAG
GTACAATTCTACATTTCAATATAAGAAGAAAAGACATAATATAAAATGTAATGTTTATGACTTACCA
AGTAGTTGCTTAAAACCTACTACTTAAATACATGTAGTATATGAAAGAAATGTATCTTTCTTATTC
AATAGAATAAAACCTTGTGTCATACATTTTGAAGTATTCAGGATTTGAAATATTCAAATATTTTGAAGTA
TTTTCAAGTATTCAGAATTGACCTCTGAAAATTAGACTTATATTAATGAATAATCCATTTACTGATAAT
ATCTGGTGCTTAGCTGTATATAAAATGACAAATGGTGGTGACCTAAGCCATTTAACTTTTGTGAGTT
TTCAGATAAAGTCCAGAGACCTTGTGATAAGCTTCTTAATTAATACTAGTTAGAAGTTAATATTGTT
CATAGGTGAGTTTCTTTTATTGCTTCATTTGCTCTTCTTCTTCTTCCACAAGAACTACTAGTCTTTCA
GATAACTCACAGTACAAAATAAGAATGTTTCTTTAAAGGATTGAAAATATGAAACAACATAGAGAGAAAA
GAAAGCAGTTAGGAAGGGGATTGCCTTAGCAAACCAAAGCTGTTTCACGTTACTTCATTAATTACTTAAA
TGGGAAAATTTTCTCAGATGCACATTTTAGTACTTTAAAAATGAAGCAAATGTTTTAACATTTATGCTGT
ATGTGATAGGTTTGTATAGAGTGAGAGAATATACATTGTGACTTTTATTAGAATAAATGGGACCATTGT
CACATATGTAATTTAATACAAATGACTTTGAATTCCTAAAAACAGAAAAGATCTTATAAGAAATTGTTAG
TATGTGTGCTTACATCTGCTATGATTATAGCATTAGATTAATAATTTAGATTTGTGATATTCAAACTTTC
TTCTCATTTGGCTCAGTCCAGATTTCTTCTTAGAGCTCTGCCTTTGTACTTATCGGAGATTCTTTTGAA
AATTTGACAACCAGTATAACTTTTCATAACACTGATATTTCTGCCAGTAAGAACATGAAAACCTTGTGCTG
GGTCTTCTTTTCTGTGAATGTGAGATAATGTATTATGGGTCTTCTTGGAGAAAGTCTCTTCTTTTA
GCACCAGTCTTTTGTAAACATGATGCCTTTGTGTAAGTGAGAAAAAGACATCTACCTGGACCAATTA
ACTATGCAAAGATGCTGTTTTTACTGGGCTGGAACCACAGTAGGACATATCTTTGCCTACCCCTGTGCT
GGGAACCACTTAAAATGCACAACTGGGTAATTGTACACAGTGTCCCTGTCCATGGCCACATAGCTTT
TCTACTTTTCTGGATTTAGTTGTGGGTTACTTGGCAAATGAGTGATTTTTAAGTGGCATCTAGAACTA
CTCAGGCTGTTGTGCTAGCTGGAATACACAGCAATGCGACTCCTACTCTGTCTTTCCCAAGTTGTATA
AACAAAGTTGACTTATTGAAACATGTGAACATGAAACTGAATGTTGCTTTCTTTATCTGAATAACTAAA
ACGTGACTTGATGATGATAAGTAATTTCTGTCAAAAATCTACTAATCTTGTGATAAAGTATTGCTTT
TCCAAATAGGCATATAAAAATGATACAATTTGTTTTCTTTAACCCGTGAAAATAAAGATGAAGACTCAC
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5' Read Nucleotide Sequence:	>OriGene 5' read for AK098103 unedited TTGTAATACGACTCACTATAGGGGCGGCCGGAATTCGCACGAGGCGCCTCGCCCGAAGC CCTCCCTCGTTACTGTCCGCATACCCGGCGGCGCCGCCGCGGAAGCGGCTCCCCCTCC TCTTCCTCCGCTCTCTCCCTCTTCCCGCCGGGGCCGCTTGTTCACCGCCCCGC GGCCTGCGGGAGCCGCTCGCCCCGGCCTTGTGCTCGCTCCGCACCCCTTCCTGTGCGC CCCCGGGCCCCGACCACAGCCCCGGCGGAGACCCCGCCAGACCCCGCTGCCCGCAC AAAATGTCGGCCCGGACGCCATTGCCGACGGTGAACGAGCGGGACACGGAAAATCATA TCTGTGGATGGATATACTGAACCACACATCCAGCCTACCAAGTCGAGTAGCAGACAGA ATCCCCCGGTGTAGAAACTCCATTACGTAGCAACAGATGAACAGCCTCACATTGGAAAT TACCGTTTACAAAAACAATAGGGAAGGGAAATTTGCCAAAGTCAAATTGGCAAGACAC GTTCTAACTGGTAGAGAGTTGCTGTGAAAATAATAGACAAAACCTCAGCTAAATCCTACC AGTCTACAAAAGGTATTTAATTAATTAATAAGTAATTAATTAATGTGAGTTTATNCATTAA TATGTGATGGTTCTGTAAAATCAGTCATTCTAAATTTTCTATTAGGTACAATTCTACATT TCATCAATATAAGAAGAAAAGACATATATNAAATGGTATGTTTATGACTTACAAAGTAGT TGCTTGAAACTATCTACTACTTAATACATGTAGATATGAAAGAATGTATCTTTATTCA TAGATAAACCCCTGTGCTACATTNTGAAGATNCAGGATTNGAAT
Restriction Sites:	NotI-NotI
ACCN:	AK098103
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:	AK098103.1
RefSeq Size:	2311 bp
RefSeq ORF:	2311 bp
Locus ID:	4139
Cytogenetics:	1q41
Protein Families:	Druggable Genome, Protein Kinase

Gene Summary:

Serine/threonine-protein kinase (PubMed:23666762). Involved in cell polarity and microtubule dynamics regulation. Phosphorylates DCX, MAP2 and MAP4. Phosphorylates the microtubule-associated protein MAPT/TAU (PubMed:23666762). 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]