

## Product datasheet for MR222155

### Camk1d (NM\_177343) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Camk1d (NM_177343) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Camk1d
Synonyms:	A630059D12Rik; CaMKIdelta; CKLiK; E030025C11Rik; mCKLiK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR222155 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCCCGGGAGAACGGCGAGAGCAGCTCCTCCTGAAAAAGCAAGCAGAAGACATTAAGAAGATCTTCG  
AGTTCAAGGAGACCCTCGGAACCTGGGCCCTTTCTGAAGTTGTTTTAGCCGAGGAGAAAGCTACTGGGAA  
GCTCTTCGCAGTGAAGTGCATCCCGAAGAAGCGCTGAAGGGCAAGGAGAGCAGCATCGAGAACGAGATT  
GCCGTGCTTAGAAAGATTAAGCATGAAAACATTGTTGCCTTGAAGATATTTATGAAAGCCCAAATCACC  
TCTACCTGGTCATGCAACTTGTGTCTGGTGGAGAACTCTTCGATCGGATAGTGGAGAAGGGGTTTTACAC  
AGAGAAAGATGCCAGCACTCTCATCCGCCAGGTCCTGGATGCCGTATACTATCTCCACAGAATGGGCATT  
GTCCACAGGGACCTCAAGCCGGAGAATCTTTATACTACAGTCAAGACGAGGAGTCCAAAATAATGATCA  
GTGACTTTGGCTTGTGCGAAAATGGAGGGCAAAGGAGATGTGATGTCCACGGCCTGCGGGACCCAGGCTA  
TGTTGCTCCGGAAGTTCTCGCCAGAAACCGTACAGCAAAGCTGTGGACTGCTGGTCCATCGGGGTGATC  
GCCTATATCTTGCTCTGTGGTTACCCTCCTTTTATGATGAAAATGACTCGAAGCTGTTTGAACAGATCC  
TCAAGGCAGAATATGAGTTTGATTCCCCTACTGGGATGACATCTCCGACTCTGCCAAAGACTTCATTG  
GAATCTGATGGAGAAAGACCCAAATAAAAGATAACACTTGTGAGCAGGCAGCTCGACACCCATGGATTGCT  
GGTGACACAGCCCTTAGCAAAAACATTCACGAATCTGTGAGTCCGAGATCCGGAAGAATTTTGCAAGA  
GCAAAATGGAGACAAGCGTTTAAACGCCACGGCAGTCGTGAGACATATGCGGAGGCTCCAGCTTGGCAGCAG  
CCTGGACAGTTCAAATGCAAGTGTCTCAAGCAACCTCAGTTTGGCCAGCCAAAAGATTGTCTGGCACCT  
TCCACGCTCTGTAGTTTCTTTCTTCTTCGTCGGGGTTCGAGGAGTCCGAGCTGAGAGGAGACCCAGGC  
CCACCACTGTGACAACAGGGCACACTGGAAGCAAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR222155 protein sequence  
 Red=Cloning site Green=Tags(s)

MARENGESSSSWKKQAEDIKKIFEFKETLGTGAFSEVLAEEKATGKLFVAVKICIPKALKGKESSIENEI  
 AVLRKIKHENIVALEDIYESPNHLYLVMQLVSGGELFDRIVEKGFYTEKASTLIRQVLDAVYYLHRMGI  
 VHRDLKPENLLYYSQDEESKIMISDFGLSKMEGKGDVMSTACGTPGYVAPEVLAQKPYSAVDCWSIGVI  
 AYILLCGYPPFYDENDSKLFEQILKAEYEFDSPYWDDISDSAKDFIRNLMKDPNKRYTCEQAARHPWIA  
 GDTALSKNIHESVAQIRKNFAKSKWRQAFNATAVVRHMRRLLQLGSSLDSSNASVSSNLSLASQKDCCLAP  
 STLCSFLSSSSGVAGVGAERRPRPTTVTTGHTGSK

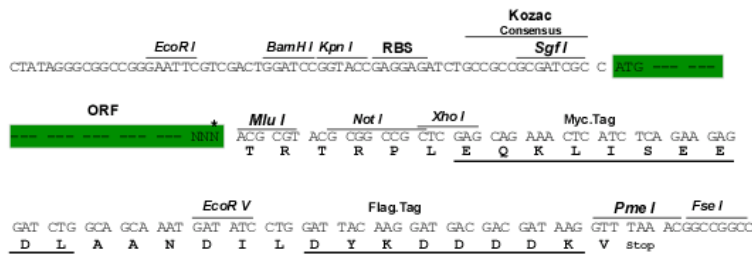
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_177343

**ORF Size:** 1158 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\\_177343.4](#), [NP\\_796317.2](#)

**RefSeq Size:** 7226 bp

**RefSeq ORF:** 1158 bp

**Locus ID:** 227541

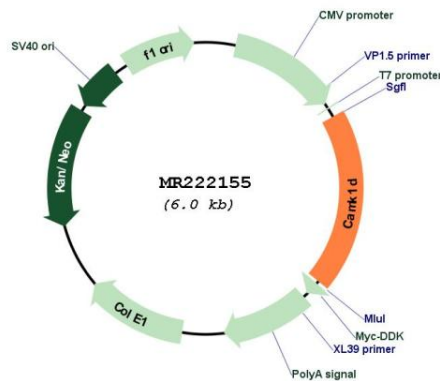
**UniProt ID:** [Q8BW96](#)

**Cytogenetics:** 2 A1

**MW:** 42.9 kDa

**Gene Summary:** Calcium/calmodulin-dependent protein kinase that operates in the calcium-triggered CaMKK-CaMK1 signaling cascade and, upon calcium influx, activates CREB-dependent gene transcription, regulates calcium-mediated granulocyte function and respiratory burst and promotes basal dendritic growth of hippocampal neurons. In neutrophil cells, required for cytokine-induced proliferative responses and activation of the respiratory burst. Activates the transcription factor CREB1 in hippocampal neuron nuclei. May play a role in apoptosis of erythroleukemia cells. In vitro, phosphorylates transcription factor CREM isoform Beta (By similarity). Isoform 1 but not isoform 2 activates CREB1.[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR222155