

## Product datasheet for **RR200416**

### Cast (NM\_053295) Rat Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Cast (NM_053295) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cast
Synonyms:	MGC108997
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide  
Sequence:**

>RR200416 representing NM\_053295  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTCCCGGCCCGCCGAAGCCCGCCGCTCTTCCAGGCCCGCGCGGGCGGCAGCTAGCCACACC  
 AGGAGCATGTTAATGAAAAGAATATTGGATCATCTTCTAAACCAGCAGAAAAGAAAGGATCTGATGAGGT  
 GACAGTTCCTCTGCTGCCACTGGCACATCTCCAGAATGAGTACCACAGGAGCTAAGGCTGTGAAAATA  
 GAGTCTGAGAAGTCAAAATCAAGTGAGCCACCTGTGATTCATGAGAAAAAGCCAAAAGAAAGCCAAAGG  
 AAGGGTCAGAGCCCCAACTCTTCTAAGCATGCATCAGATACAGGAAGTAAGCATGCTCACAAAGAAAA  
 AGCACTTTCAGATCAAATGAGCAGATAGTGTGAGAGAAATCATCAGAATCAAAGACAAAATTTCAAGAT  
 GCTCCTTCTGCTGATGGAGAGAGTGTGGCTGGAGGTGTGACTGTGGCCACTGCCTCAGACAAGGTGGTTG  
 TTAAGAAAAAAGAGAAGAAATCATTAAACACCTACTTTACCTATGGAGTCCACACTAAACAAGCTATCTGA  
 CAAGTCAGGCGTGAATGCTGCTTTGGATGACCTGATAGACACCTTAGGTGAATGTGAAGATACTAACAA  
 GATGATCCACCATATACTGGACCAGTAGTTCTGGACCCAATGGATTCTACCTACCTTGAGGCACTGGGTA  
 TAAAGAAGGGACTATTCTCCAGAGTATAGGAACTTCTGGAGAAAAATGAAGCTATCACAGGACCTCT  
 TCCAGATTCTCTAAACCTATGGGAATCGACCATGCTATAGATGCCTTGTCTATCTGATTTACCTGTAGC  
 TCTCCAAGTGGAAAGCAAAGTGAAGAGAGAAAGTCTACTGGGAAAGTTCGAAAGCTCAGTCTGCAGGAG  
 TGACCAGAAGTGTCTTCTCCCGAGGAGAAAAGGAAAGTGAAGAGGAGGTCATGAATGATCAAGC  
 CCTGCAGGCTCTGTGAGATTCAGTGGCCACCCGCGCAGCCAGCCCTCAGAGCCATCTTAGGCAAGCCAAA  
 CAAGTCAAAGAGGCAAAGCAAAGAAGAAAGGCAAGGAGAAATGTGGTGAAGATGAGGACACAGTACCTG  
 CTGAGTACAGGTTAAAACCAGCCAAGGATAAAGATGAAAACCACTATTGCCAGAACCTGAAGAAACATC  
 TAAGTGCCTGAGTGAGTCAGAGCTGATTGGGGAGCTTTCAGCAGATTTTGTCCAACCTACATATCAAGAA  
 AAACCATCTATGCCAGCTGCAAAAATAAAGAAGGGCGTAGTGCCAGATGATGCTGTAGAAACCTTGCTA  
 GAAGCCTGGGACAAGGAAAGAAGATCCAGAAGATGAAAATCTCTGGTGGATAAAGTCAAGGAGAAAGC  
 TAAAGAAGAAGATCATGAAAACCTTGGTGAAGAAGAAACAATTCCTCCTGATTATCGACTAGAAATA  
 GTCAAGGATAAGGATGAAAACCGCTCTGCCAAAAGAAGCCGAGGAACAACCTCCACCCTTAAGCGATG  
 ACTTCTTCTTGATGCATTGTCTCAGGACTTCTCCAGTCTGCAAACATATTGTCTCTTGGTTTTGAAGA  
 TGCCAAACTTTCTGCTGCTGTTTCTGAAACAGTTTCCAGGTGCCTGCTCCAAGCAACCACACAGCAGCC  
 CCACCGCCTGGCACTGAGAGGAGAGACAAGAAGTCTGATGATGCCTTGGATGAACCTTTCTGACAGTCTTG  
 GACAAAGACAGCCTGATCCAGATGAGAACAACCACTAGATGATAAAGTAAAGGAAAAATCAAAGCAGA  
 GCATAGCGAGAACTGGGAGAAAGAGACACACCATCCCCCTGAATATAGGCATCTCCTGGATAATGAT  
 GGGAAAGCAAAACCAGAGAAGCCACTGACAAAAGACACAGAGAAGCCTGGTCAGGACCAGGACCCCATTTG  
 ATGCCCTCTCAGAAGACTTGGATAGCTGCCCCCAACTACAGAGACTTCACAGAAACAACAAAGGAGAA  
 GGGTAAGAAGACTTCAAGTTCAAAGCATCCAAGAATGAAGAGAAAACAAAGGATTCCTCCAAGAAGACA  
 GAGGAAGTGCCCAAGCCAAGGTGGATGAAGATGCAACA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RR200416 representing NM\_053295  
 Red=Cloning site Green=Tags(s)

MSRPGPKPAASSRPRRGAAASHTQEHVNEKNIGSSSKPAEKKGSDEVTASSAATGTSRPMSTTGAKAVKI  
 ESEKSSQSEPPVIHEKKPKGKPEGSEPTLPKHASDTGSKHAKHEKALSRNEQIVSEKSSKTKFQD  
 APSADGESVAGGVTVATASDKVVVKKKEKSLTPTLPMESTLNKLSKSGVNAALDDLIDTLGECEDTNK  
 DDPPYTGPVVLDPMDSTYLEALGIKEGIPPEYRKLLEKNEAITGPLPDSPKMGIDHAIDALSSDFTCS  
 SPTGKQTEKEKSTGESSKAQSAGVTRSAVPPQEKKRVEEVMNDQALQALSDSLGTRQPDQSHLRQAK  
 QVKEAKAKEERQEKGEDEDTVAEYRLKPAKDKDGKPLLPEPEETSKCLSESELIGELSADFVQPTYQE  
 KPSMPAAKIKKGVVDDAVETLARSLGTRKEDPEDEKSLVDKVEKAKEEDHEKLGEKEETIPPDYRLEI  
 VKDKDGKPLLKPEAEEQLPPLSDFLLDALSQDFSSPANILSLGFEDAKLSAAVSETVSVQVPAPSNHTAA  
 PPPGTERRDKELDDALDELSDSLGQRQPDNDKPLDDKVKKEIKAEHSEKLGERRDTPPEYRHLDDND  
 GKDKPEKPLTKNTEKPGQDQPIDALSEDLDSCPPTTETSQNTTKEKGGKTSSSKASKNEEKTDKSSKKT  
 EEVPPKPVDEDAT

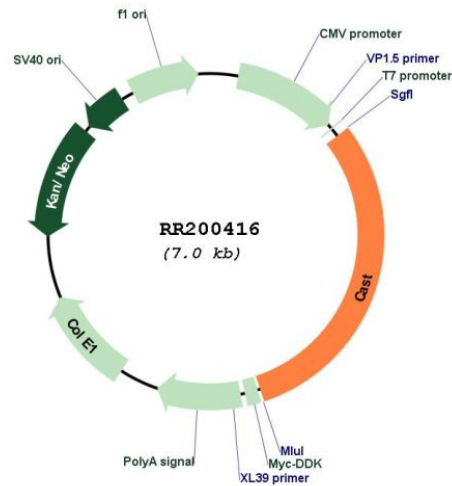
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



**Plasmid Map:**


**ACCN:** NM\_053295

**ORF Size:** 2139 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\\_053295.2](#), [NP\\_445747.2](#)

**RefSeq Size:** 4649 bp

**RefSeq ORF:** 2142 bp

Locus ID: 25403  
UniProt ID: [P27321](#)  
Cytogenetics: 2q11  
MW: 77.3 kDa  
Gene Summary: inhibitor of calpain; degradation is required for myoblast fusion; exists in multiple alternatively spliced isoforms [RGD, Feb 2006]