

## Product datasheet for **MR209946**

### Cast (BC010603) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Cast (BC010603) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cast
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>MR209946 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCCGCATCGCC

ATGAGTACCACAGAGACTAAGGCTGTGAAAACAGAGTCTAAGAAACCACAATCAAGTGAGCAACCTGTGG  
TTCACGAGAAAAAGTCAAAGGAGGGCCAAAGGAAGGGTCAGAGCCAAAAATCTCCGAAGCACACATC  
AAGTACAGGAAGCAAGCATGCTCATAAAGAAAAAGCACTTTCCAGATCAAATGAACAGATGGTGTCAAG  
AAACCATCAGAATCAAAGACAAAATTTCAAGATGTTCTTCAGCTGGTGGAGAGAGTGTGGCTGGAGGTG  
GGACTGTGGCCACTGCCTTGGACAAAGTGGTGGTAAGAAAAAGAACAGAAACCATTACACCAGCTTC  
ACCTGTGCAGTCCACACCGAGCAAGCCATCTGACAAGTCAAGCATGGATGCTGCCTTGGATGACCTGATA  
GACACCTTAGGTGGACATGAAGATACTAACAGAGATGATCCACCATATACTGGACCAGTAGTTTTGGACC  
CAATGTATTCTACCTACCTTGGGCACTGGGTATAAAAAGAAGGGACTATTCCTCCAGAGTATAGGAACT  
TTTGGAAAAAATGAAGGGATCACACAACCTCTCCAGACTCTCCTAAACCTATGGGGACTGACCAGGCT  
ATAGATGCCTTGTCACTGATTTACCTGTAGTTCTCCAAGTGAAGAAAGCAAGTGAAGAAAGAGAAGTCTA  
CTGGGGAAATTTCAAAGCTCAGTCTGCAGGAGTGACCAGAAGTTCTGTTCCCCCAAGGAGAAGAAAAAG  
GAAGGTGGAAGAGGAGGTCAATAATGATCAAGCACTTCAGGCTCTGTGAGATTCACTGGGCACCCGGCAG  
CCAGATCTCCGAGCCACGTTAGCCAAGCTGAACAAGTCAAAGAGGCAAAAGCAAAAGAAGAAAGGCAGG  
AGAAGTGTGGTGAAGATGAGGACACAGTCCCAGCTGAGTACAGGTTAAAACCAGCAAAGGATAAAGATGG  
AAAACCACTATTGCCAGAGCCTGAAGAAACATCTAAGAGCCTGAGTGAGTCGGAGCTGATTGGGGAGCTT  
TCAGCAGATTTTGACCGATCTACATATCAAGACAAACCTCTACGCCAGCTGAAAAGAAATCCAATGACA  
CATCCCAAACCTCCGGGGGAGACTGTGCCTCGGGCCTCCATGTGCAGTATACGGTCAGCGCCACCCAA  
ACTAGCATCCTTGAAGGGCGTGGTACCAGAAGATGCTGTTGAAACCTTGGCTGGAAGCCTGGGGACAAGG  
GAAGCAGATCCAGAACATGAAAAAAGTGTGGAGGATAAAGTCAAGGAGAAAGCTAAAAGAAGAAGAGCATG  
AAAAACTTGGTAAAAAGAAGAAACAGTGCCTCCTGATTATCGACTAGAAGAAGTCAAGGATAAGGATGG  
AAAACCACTCCTGCCAAAGAATCCCAGGAACAACCTTGCACCCTTAAGCGATGACTTCCTTCTTGATGCC  
TTGTCTCAGGACTTCTCCAGTCCGGCAAACATATCGTCTCTTGAATTTGAAGATGCCAACTTTCTGCTG  
CCATTTCTGAAGTAGTTTCTCAGACACCTGCTCCAAGCACCCATGCAGCAGCTCCACTGCCTGGCACTGA  
GCAGAAAGACAAAGAAGTGGATGATGCCTTGGATGAAGTTCTGACAGTCTTGGACAAAGGCCCGCTGAT  
CCAGATGAGAACAACCACTGGATGACAAGTGAAGGAGAAAATCAAACCAGAGCATAGCGAGAACTGG  
GAGAAAGAGACGACACCATCCCCCTGAATACAGGCATCTCTGGATAATGATGGGAAGAAACCTGATCA  
GGACCGGGACCCATTGATGCCCTCTCAGAAGATTTGGATAGTCCCTCAACTACAGAGACCTCAAAG  
AATACAGCAAAGGGGAAGAGCAAGAAGACTTCAAGTTCCAAGCATCCAAGGACGGAGAGAAAACAAAGG  
ACTCTTCCAAGAAGACAGAGGAAGTGTCCAAGCCAAAGGCTAAAGAAGATGCAAGACACAGT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR209946 protein sequence  
Red=Cloning site Green=Tags(s)

MSTTETKAVKTESKPKQSSEQPVVHEKKS KGGPKEGSEPKNLPKHTSSTGSKHAHKEKALSR SNEQMVSE  
 KPSESKTKFQDVPSAGGESVAGGGTVATALDKVVGKKKEQKPFTPASPVQSTPSKPSDKSGMDAALDDLI  
 DTLGGHEDTNRDDPPYTPGVVLDPMYSTYLEALGIKEGTIPPEYRKLLEKNEGITQPLPDSPKPMGTDQA  
 IDALSSDFTCSSPTGKQSEKEKSTGEIFKAQSAGVTRSSVPPKEKKRKRVEEEVINDQALQALSDSLGTRQ  
 PDPPSHVSQAEQVKEAKAKEERQEKCGEDEDTPAEYRLKPAKDKDGKPLLPEPEETSKSLSESELIGEL  
 SADFDIRSTYQDKPSTPAEKSNDSQTTPGETVPRASMCSIRSAPPKLASLKGVVPEDAVETLAGSLGTR  
 EADPEHEKTVEDKVKEKAKEEEHEKLGEEETVPPDYRLEEVKDKDGKPLLPKESQEQALPLSDDFLDDA  
 LSQDFSSPANISSLEFEDA KLSAAISEVVSQTPAPSTHAAAPLPGTEQKDKELDDALDELSDSLGQRPPD  
 PDENKPLDDKVKEKIKPEHSEKLGERRDITIPPEYRHLLDNDGKKPDQDRDPIDALSEDLDSCPSTTETSK  
 NTA K GSKKTS SSKASKDGEKTKDSSKKTEEVSKPKAKEDARHS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**



**ACCN:** BC010603

**ORF Size:** 2022 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:** [BC010603](#), [AAH10603](#)

**RefSeq Size:** 2712 bp

**RefSeq ORF:** 2024 bp

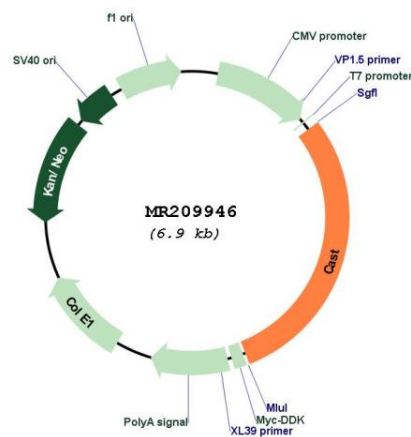
**Locus ID:** 12380

**Cytogenetics:** 13 C1

**MW:** 73 kDa

**Gene Summary:** This gene encodes an inhibitor of the calcium-dependent cysteine protease, calpain. This protein plays roles in multiple processes, including apoptosis, cell cycle regulation, and membrane fusion. Multiple protein isoforms exist which contain unique N-terminal domains, and multiple inhibitory domains that share homology with each other. Some isoforms may be tissue-specific. Two different pseudogenes of this gene are found on chromosome 19. [provided by RefSeq, Jul 2014]

### Product images:



Circular map for MR209946