

## Product datasheet for **MC228673**

### Cast (NM\_001301156) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Cast (NM_001301156) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Cast
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**Fully Sequenced ORF:** >MC228673 representing NM\_001301156  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGTACCACAGAGACTAAGGCTGTGAAAACAGAGTCTAAGAAACCACAATCAAGTGGCAACCTGTGG  
 TTCACGAGAAAAAGTCAAAGGAGGGCCAAAGGAAGGGTCAGAGCCAAAAATCTCCGAAGCACACATC  
 AAGTACAGGAAGCAAGCATGCTCATAAAGAAAAAGCACTTTCCAGATCAAATGAACAGATGGTGTACAG  
 AAACCATCAGAATCAAAGACAAAATTTCAAGATGTTCTTCAGCTGGTGGAGAGAGTGTGGCTGGAGGTG  
 GGACTGTGGCCACTGCCTTGGACAAAGTGGTGGTAAGAAAAAGAACAGAAACCATTACACCAGCTTC  
 ACCTGTGCAGTCCACACCGAGCAAGCCATCTGACAAGTCAAGCATGGATGCTGCCTTGGATGACCTGATA  
 GACACCTTAGGTGGACATGAAGATACTAACAGAGATGATCCACCATACTGGACCAGTAGTTTTGGACC  
 CAATGTATTCTACCTACCTTGGGCACTGGGTATAAAGAAGGGACTATTCCTCCAGAGTATAGGAACT  
 TTTGGAAAAAATGAAGGGATCACACAACCTCTCCAGACTCTCCTAAACCTATGGGGACTGACCAGGCT  
 ATAGATGCCTTGTTCATCTGATTTACCTGTAGTTCTCCAAGTGAAGAAAGTGAAGAAAGAGAAGTCTA  
 CTGGGGAAATTTCAAAGCTCAGTCTGCAGGAGTGACCAGAAGTTCTGTTCCCCCAAGGAGAAGAAAAAG  
 GAAGGTGGAAGAGGAGGTCAATAATGATCAAGCACTTCAGGCTCTGTGAGATTCACTGGGCACCCGGCAG  
 CCAGATCTCCGAGCCAGTTAGCCAAGCTGAACAAGTCAAAGAGGCAAAAGCAAAGAAGAAAGGCAGG  
 AGAAGTGTGGTGAAGTGAAGGACACAGTCCCAGCTGAGTACAGGTTAAAACCAGCAAAGGATAAAGATGG  
 AAAACCACTATTGCCAGAGCCTGAAGAAACATCTAAGAGCCTGAGTGAAGTGGAGCTGATTGGGGAGCTT  
 TCAGCAGATTTTGACCGATCTACATATCAAGACAAACCTCTACGCCAGCTGAAAAGAAATCCAATGACA  
 CATCCCAAACCTCTCCGGGGAGACTGTGCCTCGGGCCTCCATGTGCAGTATACGGTCAGCGCCACCCAA  
 ACTAGCATCCTTGAAGGGCGTGGTACCAGAAGATGCTGTTGAAACCTTGGCTGGAAGCCTGGGGACAAGG  
 GAAGCAGATCCAGAACATGAAAAAAGTGTGGAGGATAAAGTCAAGGAGAAAGCTAAAAGAAGAGCATG  
 AAAAAGTGTGGTAAAAAGAAGAAACAGTGCCTCCTGATTATCGACTAGAAGAAAGTCAAGGATAAGGATGG  
 AAAACCACTCCTGCCAAAGAATCCCAGGAACAACCTGCACCCTTAAGCGATGACTTCCTTCTTGATGCC  
 TTGTCTCAGGACTTCTCCAGTCCGGCAACATATCGTCTCTTGAATTTGAAGATGCCAACTTTCTGCTG  
 CCATTTCTGAAGTAGTTTCTCAGACACCTGCTCCAAGCACCCATGCAGCAGCTCCACTGCCTGGCACTGA  
 GCAGAAAGACAAAGAAGTGGATGATGCCTTGGATGAACCTTCTGACAGTCTTGGACAAAGGCCGCTGAT  
 CCAGATGAGAACAACCACTGGATGACAAGTGAAGGAGAAAATCAAACCAGAGCATAGCGAAGAACTGG  
 GAGAAAGAGACGACACCATCCCCCTGAATACAGGCATCTCTGGATAATGATGGGAAGGACAAACCAGA  
 GAAGCCACCGACTAAGAAAAAGAGAAACCTGATCAGGACCGGGACCCCACTTGGATGCCCTCTCAGAGAT  
 TTGGATAGCTGCCCTCACTACAGAGACCTCAAAGAATACAGCAAGGGGAAGGACAAAGAGACTTCAA  
 GTTCCAAGCATCCAAGGACGGAGAGAAAAACAAGGACTCTTCCAAGAAGACAGAGGAAGTGTCCAAGCC  
 AAAGGCTAAAGAAGATGCAAGACACAGT**TAA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** Sgfl-Mlul

**ACCN:** NM\_001301156

**Insert Size:** 2061 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).

**OTI Annotation:** Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_001301156.1</u> , <u>NP_001288085.1</u>
<b>RefSeq Size:</b>	3839 bp
<b>RefSeq ORF:</b>	2061 bp
<b>Locus ID:</b>	12380
<b>Cytogenetics:</b>	13 C1
<b>Gene Summary:</b>	<p>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]</p> <p>Transcript Variant: This variant (4) represents use of an alternate promoter and therefore differs in the 5' UTR and 5' coding region, compared to variant 1. These differences cause translation initiation at a downstream start codon and result in an isoform (4) with a shorter N-terminus. This variant (4) also lacks an internal exon in the coding region. The resulting protein (isoform 4) has a shorter N-terminus and is shorter than isoform 1.</p>