

## Product datasheet for **MC227746**

### Cast (NM\_001301181) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Cast (NM_001301181) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Cast
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >MC227746 representing NM\_001301181  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGC**C

ATGGGCCAGTTTCTGTCTTCTACTTTCTGGGAGGGCTCACCTGCTGCAGTGTGGCAAGAAAAGCTTCGTG  
 AGGGTGAACGAAAGGGAGCTGGAGAAACCATCCCTATCCTCCAGGACCATGTAATATGCTCAGAAGAAAG  
 GGAACATGGGTCCAAACACCATGAGGCAAAAGCAAAAGAAAGGCAGGAGAAGTGTGGTGAAGATGAG  
 GACACAGTCCCAGCTGAGTACAGGTTAAAACAGCAAAAGGATAAAGATGGAAAACCACTATTGCCAGAGC  
 CTGAAGAAACATCTAAGAGCCTGAGTGAGTCGGAGCTGATTGGGGAGCTTTCAGCAGATTTTGACCGATC  
 TACATATCAAGACAAACCATCTACGCCAGCTGAAAAGAAATCCAATGACACATCCCAAACCTCCGGGG  
 GAGACTGTGCCTCGGCCTCCATGTGCAGTATACGGTCAGCGCCACCCAACTAGCATCCTTGAAGGGCG  
 TGGTACCAGAAGATGCTGTTGAAACCTTGGCTGGAAGCCTGGGGACAAGGAAGCAGATCCAGAACATGA  
 AAAAAGTGTGGAGATAAAGTCAAGGAGAAAGCTAAAGAAGAAGAGCATGAAAACTTGGTAAAAAGAA  
 GAAACAGTGCCTCCTGATTATCGACTAGAAGAAGTCAAGGATAAGGATGGAAAACCACTCCTGCCCAAAG  
 AATCCCAGGAACAACTTGACCCCTTAAGCGATGACTTCCTTCTTGATGCCTTGTCTCAGGACTTCTCCAG  
 TCCGGCAAACATATCGTCTCTTGAATTTGAAGATGCCAACTTTCTGCTGCCATTTCTGAAGTAGTTTCT  
 CAGACACCTGCTCCAAGCACCATGCAGCAGCTCCACTGCCTGGCACTGAGCAGAAAGACAAAGAACTTG  
 ATGATGCCTTGGATGAATTTCTGACAGTCTTGGACAAAGGCCGCTGATCCAGATGAGAACAACCACT  
 GGATGACAAAGTGAAGGAGAAAAACAACCAGAGCATAGCGAGAACTGGGAGAAAGAGACGACACCATC  
 CCCCTGAATACAGGCATCTCTTGGATAATGATGGGAAGGACAAACCAGAGAAGCCACCGACTAAGAAAA  
 CAGAGAAACCTGATCAGGACCGGGACCCATTGATGCCCTCTCAGAAGATTTGGATAGCTGCCCCTCAAC  
 TACAGAGACCTCAAAGAATACAGCAAAAGGGAAGAGCAAGAAGACTTCAAGTTCCAAAGCATCCAAGGAC  
 GGAGAGAAAAACAAGGACTCTTCCAAGAAGACAGAGGAAGTGTCCAAGCCAAAGGCTAAAGAAGATGCAA  
 GACACAGT**TAA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI

**ACCN:** NM\_001301181

**Insert Size:** 1341 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.

**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).

<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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u>NM_001301181.1, NP_001288110.1</u>
<b>RefSeq Size:</b>	2973 bp
<b>RefSeq ORF:</b>	1341 bp
<b>Locus ID:</b>	12380
<b>UniProt ID:</b>	<u>P51125</u>
<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 (8) 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 an alternate start codon and result in an isoform (8) with a shorter and distinct N-terminus. The resulting protein (isoform 8) has a distinct and shorter N-terminus and is shorter than isoform 1.</p>