

## Product datasheet for **RC203233**

### **CAPNS1 (NM\_001003962) Human Tagged ORF Clone**

#### **Product data:**

**Product Type:** Expression Plasmids  
**Product Name:** CAPNS1 (NM\_001003962) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** CAPNS1  
**Synonyms:** CALPAIN4; CANP; CANPS; CAPN4; CDPS; CSS1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC203233 representing NM\_001003962  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGC**C

ATGTTCTGGTTAACTCGTTCTTGAAGGGCGGCGGCGGCGGGGAGCGGGGGCCTGGGTGGG  
GCCTGGGAAATGTGCTTGGAGGCCTGATCAGCGGGGCGGGGGCGGCGGCGGGCGGGCGGGCGG  
CGGTGGTGGAGGCGGCGGTGGCGGTGGAACGCCATGCGCATCCTAGCGGAGTCATCAGCGCCATCAG  
GAGGCGGCTGCGCAGTACAACCCGAGCCCCGCCCCACGCACACATTACTCCAACATTGAGGCCAACG  
AGAGTGAGGAGGTCGGCAGTTCGGGAGACTCTTTGCCAGCTGGCTGGAGATGACATGGAGGTCAGCGC  
CACAGAACTCATGAACATTCTCAATAAGGTTGTGACACGACCCCTGATCTGAAGACTGATGGTTTTGGC  
ATTGACACATGTGCGCAGCATGGTGGCCGTGATGGATAGCGACACCACAGCAAGCTGGGCTTTGAGGAAT  
TCAAGTACTTGTGGAACAACATCAAAGGTGGCAGGCCATATACAAACAGTTCGACACTGACCGATCAGG  
GACCATTTGCAGTAGTGAACCTCCAGGTGCCTTTGAGGCAGCAGGGTTCCACCTGAATGAGCATCTCTAT  
AACATGATCATCCGACGCTACTCAGATGAAAGTGGGAACATGGATTTTGACAACTTATCAGCTGCTTGG  
TCAGGCTGGACGCCATGTTCCGTGCCTTCAAATCTCTTGACAAAGATGGCACTGGACAAATCCAGGTGAA  
CATCCAGGAGTGGCTGCAGCTGACTATGTATTCC

**ACGCGT**ACGCGGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC203233 representing NM\_001003962  
Red=Cloning site Green=Tags(s)

MFLVNSFLKGGGGGGGGGGLGGGLGNVLGGLISGAGGGGGGGGGGGGGGGGGGTAMRILGGVIS AIS  
 EAAAQYNPEPPPPRTHYSNIEANESEEVQRFRLLFAQLAGDDMEVSATELMNILNKVVTRHPDLKTDGFG  
 IDTCRSMVAVMDSDTTGLGFEEFKYLWNNIKRWQAIYKQFDTRSGTICSELPGAFEAAAGFHLNEHLY  
 NMIIRRYSDSEGNMDFDNFISCLVRLDAMFRAFKSLDKDGTGQIQVNIQEWLQLTMYs

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8121\\_c12.zip](https://cdn.origene.com/chromatograms/mk8121_c12.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



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

**ACCN:** NM\_001003962

**ORF Size:** 804 bp

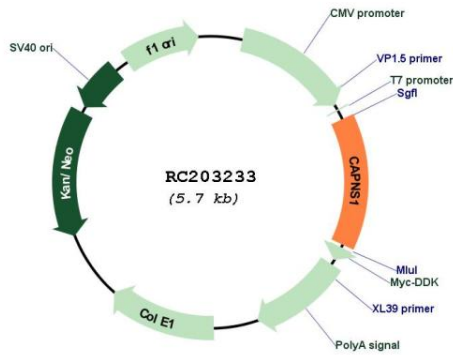
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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.

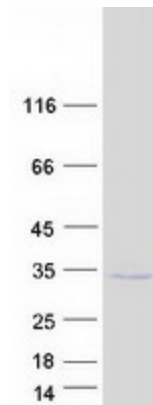
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<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>	<a href="#">NM_001003962.3</a>
<b>RefSeq Size:</b>	1489 bp
<b>RefSeq ORF:</b>	807 bp
<b>Locus ID:</b>	826
<b>UniProt ID:</b>	<a href="#">P04632</a>
<b>Cytogenetics:</b>	19q13.12
<b>Protein Families:</b>	Druggable Genome, Protease
<b>MW:</b>	28.8 kDa
<b>Gene Summary:</b>	<p>This gene is a member of the calpain small subunit family. Calpains are calcium-dependent cysteine proteinases that are widely distributed in mammalian cells. Calpains operate as heterodimers, comprising a specific large catalytic subunit (calpain 1 subunit in Calpain I, and calpain 2 subunit in Calpain II), and a common small regulatory subunit encoded by this gene. This encoded protein is essential for the stability and function of both calpain heterodimers, whose proteolytic activities influence various cellular functions including apoptosis, proliferation, migration, adhesion, and autophagy. Calpains have been implicated in neurodegenerative processes, such as myotonic dystrophy. A pseudogene of this gene has been defined on chromosome 1. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Oct 2014]</p>

Product images:



Circular map for RC203233



Coomassie blue staining of purified CAPNS1 protein (Cat# [TP303233]). The protein was produced from HEK293T cells transfected with CAPNS1 cDNA clone (Cat# RC203233) using MegaTran 2.0 (Cat# [TT210002]).