

## Product datasheet for **RC218247**

### Calpain 3 (CAPN3) (NM\_000070) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Calpain 3 (CAPN3) (NM_000070) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Calpain 3
Synonyms:	CANP3; CANPL3; LGMD2; LGMD2A; LGMDD4; LGMDR1; nCL-1; p94
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC218247 representing NM\_000070  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGCCACCGTCATTAGCGCATCTGTGGCTCCAAGGACAGCGGCTGAGCCCCGGTCCCCAGGGCCAGTTC  
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**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC218247 representing NM\_000070  
 Red=Cloning site Green=Tags(s)

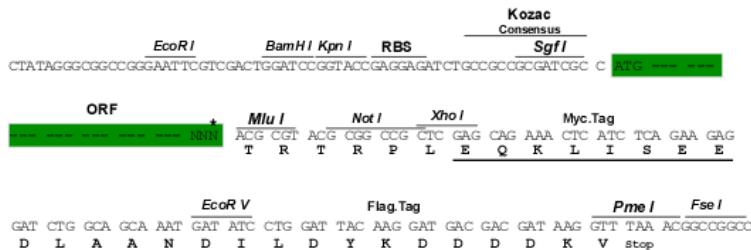
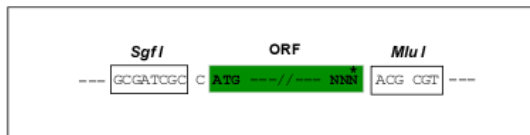
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 VKLVRLRNPWGQVEWNGSWSDRWKDWSFVKDEKARLQHQVTEDEGEFWMSEDFIYHFTKLEICNLTADA  
 LQSDKLQWTVSVNEGRWVRGCSAGGCRNFPDTFWTNPQYRLKLEEDDDPDDSEVICSFVALMQKNRR  
 KDRKLGASLFTIGFAIYEVPKEMHGKQHLQKDFFLYNASKARSKTYINMREVSQRFLPPSEYVIVPST  
 YEPHQEGEFILRVFSEKRNLSEEVENTISVDRPVKKKTKPIIFVSDRANSNKELGVDQESEEKGTSP  
 DKQKQSPQPQGSDDQSEEEQQFRNIFKQIAGDDMEICADELKKVLNTVVKHKDLKTHGFTLESCRSM  
 IALMDTDGSGKLNLEFHHLWNIKAWQKIFKHVDTDQSGTINSYEMRNAVNDAGFHLNNQLYDIITMRY  
 ADKHMNIDFSFICCFVRLEGMFRAFHFADKDGDIKLNVLWLQLTMYA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** Sgfl-MluI

## Cloning Scheme:

Cloning sites used for ORF Shuttling:



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

**ACCN:** NM\_000070

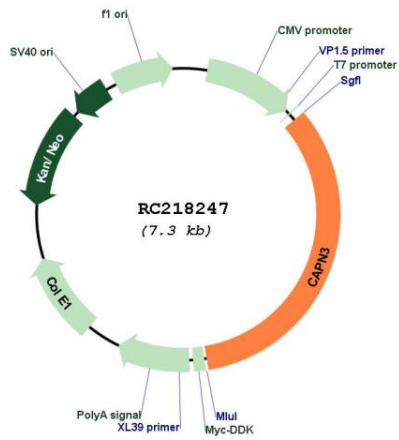
**ORF Size:** 2463 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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>	<a href="#">NM_000070.3</a>
<b>RefSeq Size:</b>	3316 bp
<b>RefSeq ORF:</b>	2466 bp
<b>Locus ID:</b>	825
<b>UniProt ID:</b>	<a href="#">P20807</a>
<b>Cytogenetics:</b>	15q15.1
<b>Protein Families:</b>	Druggable Genome, Protease
<b>MW:</b>	94.1 kDa
<b>Gene Summary:</b>	Calpain, a heterodimer consisting of a large and a small subunit, is a major intracellular protease, although its function has not been well established. This gene encodes a muscle-specific member of the calpain large subunit family that specifically binds to titin. Mutations in this gene are associated with limb-girdle muscular dystrophies type 2A. Alternate promoters and alternative splicing result in multiple transcript variants encoding different isoforms and some variants are ubiquitously expressed. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC218247