

Product datasheet for **RC200964**

Calpain 1 (CAPN1) (NM_005186) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Calpain 1 (CAPN1) (NM_005186) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Calpain 1
Synonyms:	CANP; CANP1; CANPL1; muCANP; muCL; SPG76
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>RC200964 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCGGAGGAGATCATCACGCCGTGTACTGCACTGGGGTGTACAGCCCAAGTCAGAAGCAGCGGGCCA
GGGAGCTGGGCTGGGCCGCCATGAGAATGCCATCAAGTACCTGGGCCAGGATTATGAGCAGCTGCGGGT
GCGATGCCTGCAGAGTGGGACCCTCTTCCGTGATGAGGCCTTCCCCCGGTACCCAGAGCCTGGGTAC
AAGGACCTGGGTCCCAATTCCTCCAAGACCTATGGCATCAAGTGAAGCGTCCCACGGAAGTGTGTCAA
ACCCCCAGTTCATTGTGGATGGAGCTACCCGCACAGACATCTGCCAGGGAGCACTGGGGACTGCTGGCT
CTTGGCGGCCATCGCTCCCTCACTCTCAACGACACCCTCTGCACCGAGTGGTCCGCACGGCCAGAGC
TTCCAGAATGGCTATGCCGGCATCTTCCATTTCCAGCTGTGGCAATTTGGGGAGTGGGTGGACGTGGTGC
TGGATGACCTGCTGCCCATCAAGGACGGGAAGCTAGTGTTCGTGCACTCTGCCGAAGGCAACGAGTCTG
GAGCGCCCTGCTTGAAGAAGCCATGCCAAGGTAATGGCAGCTACGAGGCCCTGTCAGGGGGCAGCACC
TCAGAGGGCTTTGAGGACTTCACAGGCGGGGTTACCGAGTGGTACGAGTTGCGCAAGGCTCCAGTGACC
TCTACCAGATCATCCTCAAGGCGCTGGAGCGGGGCTCCCTGCTGGGCTGCTCCATAGACATCTCCAGCGT
TCTAGACATGGAGGCCATCACTTTCAAGAAGTTGGTGAAGGGCCATGCCTACTCTGTGACCGGGGCCAAG
CAGGTGAACTACCGAGGCCAGGTGGTGAGCCTGATCCGGATGCGGAACCCCTGGGGCAGGTGGAGTGA
CGGGAGCTGGAGCGACAGCTCCTCAGAGTGAACAACGTGGACCCATATGAACGGGACCAGCTCCGGGT
CAAGATGGAGGACGGGGAGTTCTGGATGTATTCCGAGACTTCATGCGGGAGTTCACCCGCTGGAGATC
TGCAACCTCACACCCGACGCCCTCAAGAGCCGGACCATCCGCAATGGAACACCACACTCTACGAAGGCA
CCTGGCGCGGGGAGCACCAGCGGGGGTGGCGAACTACCCAGCCACTTCTGGGTGAACCCCTCAGTT
CAAGATCCGGCTGGATGAGACGGATGACCCGGACGACTACGGGGACCGGAGTCAGGCTGCAGCTTCGTG
CTCGCCCTTATGCAAGAAGCACCGTCGCCCGAGCGCCGCTTTCGGCCGCGACATGGAGACTATTGGCTTCG
CGGTCTACGAGGTCCCTCCGGAGCTGGTGGGCCAGCCGGCCGTACACTTGAAGCGTGACTTCTTCTGCGC
CAATGCGTCTCGGGCGCGCTCAGAGCAGTTCATCAACCTGCGAGAGGTCAGCACCCGCTTCCGCCTGCCA
CCCGGGGAGTATGTGGTGGTGCCTCCACCTTCGAGCCCAACAAGGAGGGGCGACTTCGTGCTGCGCTTCT
TCTCAGAGAAGAGTGCTGGGACTGTGGAGCTGGATGACCAGATCCAGGCCAATCTCCCCGATGAGCAAGT
GCTCTCAGAAGAGGAGATTGACGAGAATCAATGCCCTCTTCAGGCAGCTGGCAGGGGAGGACATGGAG
ATCAGCGTGAAGGAGTTGCGGACAATCCTCAATAGGATCATCAGCAAACACAAAGACCTGCGGACCAAGG
GCTTCAGCCTAGAGTCGTGCCGACGATGGTGAACCTCATGGATCGTGATGGCAATGGGAAGCTGGGCT
GGTGGAGTTCAACATCCTGTGGAACCGCATCCGGAATTACCTGTCCATCTTCCGGAAGTTTGACCTGGAC
AAGTCGGGCGAGCATGAGTGCCTACGAGATGCGGATGGCCATTGAGTCGGCAGGCTTCAAGCTCAACAAGA
AGCTGTACGAGCTCATCATACCCGCTACTCGGAGCCGACCTGGCGGTGCGACTTTGACAATTCGTTTG
CTGCCTGGTGGGCTAGAGACCATGTTCCGATTTTTCAAACCTCTGGACACAGATCTGGATGGAGTTGTG
ACCTTTGACTTGTAAAGTGGTTGCAGCTGACCATGTTTGCA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC200964 protein sequence
Red=Cloning site Green=Tags(s)

```
MSEEIITPVYCTGVSAQVQKQRARELGLGRHENAICYLGGDYEQLRVRCVLSGTLFRDEAFPPVPQSLGY
KDLGPNSSKTYGIKWKRPTELLSNPQFIVDGA TRTDICQALGDCWLLAAIASLTLNDTLLHRVPHGQS
FQNGYAGIFHFQLWQFGEWVDVVDDLLPIKDGKLVFVHSAEGNEFWALSALLEKAYAKVNGSYEALSGGST
SEGFEDFTGGVTEWYELRKAPSDLYQIILKALERGSLLGCSIDISSVLDMEAITFKKLVKGHAYSVTGAK
QVNYRQGVVSLIRMRNPWGEVEWTGAWS DSSSEWNNVDPYERDQLRVKMEDGEFWM SFRDFMREFTRLEI
CNLTPDALKSRTIRKWN TTYEGTWRRGSTAGGCRNYPATFWVNPQFKIRLDETD PDDYGDRESGCSFV
LALMQKHRRRERFRGRDMETIGFAVYEVPPPELVGQPAVHLKRDFFLANASRARSEQFINLREVSTRFRLP
PGEYVVVPSTFEPNKEGDFVLRFFSEKSAGTVELDDQIQANLPDEQVLS EEEIDENFNALFRQLAGEDME
ISVKELRTILNRIISKHKDLRTKGFSL ESCRSMVNLMDRDGNGKLG LVEFNILWNRIRNYLSIFRKFDLD
KSGSMSAYEMRMAIESAGFKLNKKLYELIITRYSEPD LAVDFDNFVCCLVRL ETMFRFFKTLDTDL DGVV
TFDLFKWLQLTMFA
```

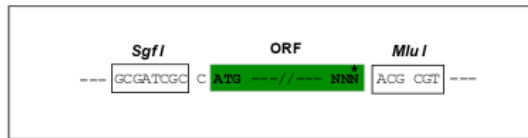
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6156_d03.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_005186

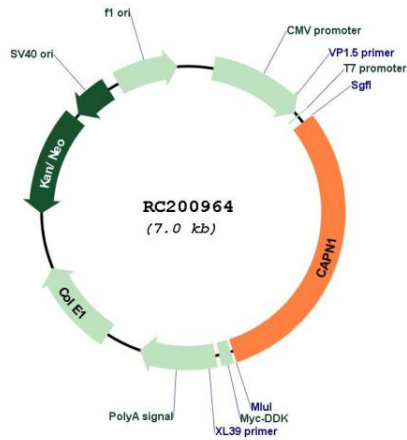
ORF Size: 2142 bp

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](#)

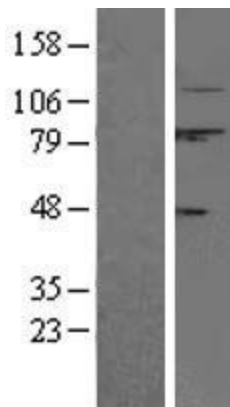
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<ol style="list-style-type: none">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:	NM_005186.4
RefSeq Size:	3110 bp
RefSeq ORF:	2145 bp
Locus ID:	823
UniProt ID:	P07384
Cytogenetics:	11q13.1
Domains:	Calpain_III, EFh
Protein Families:	Druggable Genome, Protease
Protein Pathways:	Alzheimer's disease, Apoptosis
MW:	81.9 kDa
Gene Summary:	The calpains, calcium-activated neutral proteases, are nonlysosomal, intracellular cysteine proteases. The mammalian calpains include ubiquitous, stomach-specific, and muscle-specific proteins. The ubiquitous enzymes consist of heterodimers with distinct large, catalytic subunits associated with a common small, regulatory subunit. This gene encodes the large subunit of the ubiquitous enzyme, calpain 1. Several transcript variants encoding two different isoforms have been found for this gene. [provided by RefSeq, Nov 2010]

Product images:



Circular map for RC200964



Western blot validation of overexpression lysate (Cat# [LY401587]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200964 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).