

Product datasheet for **RG212700**

Calpain 3 (CAPN3) (NM_024344) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Calpain 3 (CAPN3) (NM_024344) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Calpain 3
Synonyms:	CANP3; CANPL3; LGMD2; LGMD2A; LGMDD4; LGMDR1; nCL-1; p94
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG212700 representing NM_024344
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCACCGTCATTAGCGCATCTGTGGCTCCAAGGACAGCGGCTGAGCCCCGGTCCCCAGGGCCAGTTC
 CTACCCGGCCAGAGCAAGGCCACTGAGGCTGGGGTGGAAACCAAGTGGCATCTATTAGCCATCAT
 CAGCCGCAATTTTCTATTATCGGAGTGAAGAGAAGACATTCGAGCAACTTCACAAGAAATGTCTAGAA
 AAGAAAGTTCTTTATGTGGACCTGAGTCCACCAGGATGAGACCTCTCTTTTATAGCCAGAAGTTCC
 CCATCCAGTTCGTCGGAAGAGACCTCCGAAATTTGCGAGAATCCCGATTTATCATTGATGGAGCCAA
 CAGAACTGACATCTGTCAAGGAGAGCTAGGGGACTGCTGGTTTCTCGCAGCCATTGCCTGCCTGACCCTG
 AACCAGCACCTTCTTTCCGAGTCATACCCATGATCAAAGTTTCATCGAAAACACGCAGGGATCTTCC
 ACTTCCAGTTCGTCGCGCTATGGAGAGTGGGTGGACGTGGTTATAGATGACTGCCTGCCAAGTACAACAA
 TCAACTGGTTTTACCAAGTCCAACCACCGCAATGAGTCTGGAGTGTCTGCTGGAGAAGGCTTATGCT
 AAGCTCCATGGTTCCTACGAAGCTCTGAAAGTGGGAACACCACAGAGGCCATGGAGGACTTCACAGGAG
 GGGTGGCAGAGTTTTTGTAGATCAGGGATGCTCCTAGTGACATGTACAAGATCATGAAGAAAGCCATCGA
 GAGAGGCTCCCTCATGGGCTGCTCCATTGATGATGGCAGCAACATGACCTATGGAACCTCTCCTTCTGGT
 CTGAACATGGGGGAGTTGATTGCACGGATGGTAAGGAATATGGATAACTCACTGCTCCAGGACTCAGACC
 TCGACCCAGAGGCTCAGATGAAAGACCCGACCCGACAATCATTCCGGTTCAGTATGAGACAAGAATGGC
 CTGCGGGCTGGTCAGAGGTCACGCCTACTCTGTACGGGGCTGGATGAGGTCCCGTTCAAAGGTGAGAAA
 GTGAAGCTGGTGGGCTCGGAAATCCGTGGGGCCAGGTGGAGTGGAAACGGTCTTGGAGTGATAGATGGA
 AGGACTGGAGCTTTGTGGACAAAGATGAGAAGGCCCGTCTGCAGCACAGGTCAGTGGAGTGGAGATG
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 CTGCAGTCTGACAAGCTTCAGACCTGGACAGTGTCTGTGAACGAGGGCCGCTGGGTACGGGGTGTCTGTG
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 GGACGATGACCCTGATGACTCGGAGGTGATTTGCAGCTTCTGTTGGCCCTGATGCAGAAGAACCAGGCGG
 AAGGACCGGAAGCTAGGGGCCAGTCTTCCACCATTGGCTTCGCCATCTACGAGGTTCCCAAAGAGATGC
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 CATCAACATGCGGAGGTGTCCAGCGCTTCCGCCTGCCTCCAGCGAGTACGTATCGTCCCTCCACC
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 TTGAAAATACCATCTCCGTGGATCGGCCAGTGCCCATCATCTTCTGTTTCGGACAGAGCAAAACAGCAACA
 GGAGCTGGGTGTGGACCAGGAGTCAAGGAGGGCAAAGGCAAAACAAGCCCTGATAAGCAAAAGCAGTCC
 CCACAGCCACAGCCTGGCAGCTCTGATCAGGAAAGTGAAGAACAGCAACAATCCGGAACATTTTCAAGC
 AGATAGCAGGAGATGACATGGAGATCTGTGCAGATGAGCTCAAGAAGGTCTTAAACAGTCTGTAACAA
 ACACAAGGACCTGAAGACACACGGGTTCACTGGAGTCTGCGTAGCATGATTGCGCTCATGGATACA
 GATGGCTCTGAAAGCTCAACCTGCAGGAGTCCACCCTCTGGAACAAGATTAAGGCCTGGCAGAAAA
 TTTTCAAACACTATGACACAGACCAGTCCGGCACCATCAACAGCTACGAGATGCGAAATGCAGTCAACGA
 CGCAGGATTCACCTCAACAACCAGCTCTATGACATCATTACCATGCGGTACGCAGACAACACATGAAC
 ATCGACTTTGACAGTTTCACTGCTGCTTCGTTAGGCTGGAGGGCATGTTCAAGAGCTTTTTCATGCATTTG
 ACAAGGATGGAGATGGTATCATCAAGCTCAACGTTCTGGAGTGGTGCAGCTCACCATGTATGCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG212700 representing NM_024344
Red=Cloning site Green=Tags(s)

MPTVISASVAPRTAAEPRSPGPVPHPAQSKATEAGGGNPSGIYSAIISRNFPIIGVKEKTFEQLHKKCLE
KKVLYVDPEFPDETSLFYSQKFPIQFVWKRPEICENPRFIIDGANRTDICCQELGDCWFLAAIACLT
NQHLLFRVIPHDQSF IENYAGIFHFQFWRYGEWVDVVIDDCLPTYNNQLVFTKSNHRNEFWSALLEKAYA
KLHGSEALKGGNTTEAMEDFTGGVAEFFEIRDAPSDMYKIMKKAIERGSLMGCSIDDGTNMTYGTSPSG
LNMGELIARMVRNMDNSLLQSDLDPRGSDERPTRTIIPVQYETRMACGLVRGHAYSVTGLDEVFPFKGEK
VKLVRLRNPWGQVEWNGSWSDRWKDSFVVKDEKARLQHQVTEDEGEFWMSEYDFIYHFTKLEICNLTADA
LQSDKLQWTWVSVNEGRWVRGCSAGGCRNFPDTFWTNPQYRLKLEEDDDPDDSEVICSFVALMQKNRR
KDRKLGASLFTIGFAIYEVPKEMHGKQHLQKDFFLYNASKARSKTYINMREVSQRFRLPSEYVIVPST
YEPHQEGEFILRVFSEKRNLSEEVENTISVDRPVPIIFVSDRANSNKELGVDQSEEGKGKTSPOKQKQS
PQPQPGSSDQSEEEQQFRNIFKQIAGDDMEICADELKKVLNTVVNKHKDLKTHGFTLESCRSMIALMDT
DGSGLNLQEFHHLWNKIKAWQKIFKHYPDQSGTINSYEMRNAVNDAGFHLNNQLYDIIITMRYADKHMN
IDFDSFICCFVRLEGMFRAFHFADKDGDIKLVLEWLQLTMYA

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:


ACCN: NM_024344

ORF Size: 2445 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:

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_024344.1](#), [NP_077320.1](#)

RefSeq Size: 3298 bp

RefSeq ORF: 2448 bp

Locus ID: 825

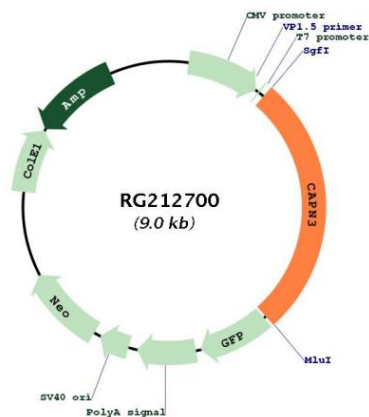
UniProt ID: [P20807](#)

Cytogenetics: 15q15.1

Protein Families: Druggable Genome, Protease

Gene Summary: 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 RG212700