

Product datasheet for **RG211502**

Calpain 9 (CAPN9) (NM_016452) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Calpain 9 (CAPN9) (NM_016452) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CAPN9
Synonyms:	GC36; nCL-4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>RG211502 representing NM_016452
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGCCTTACCTCTACCGGCCCCAGGGCCTCAGGCACACCCGGTTCCCAAGGACGCCGGATCACCCACT
CCTCAGGCCAGAGCTTTGAGCAAATGAGGCAGGAGTGCCTGCAGAGAGGCCACCCTGTTTGAGGATGCAGA
CTTCCCAGCCAGCAATTCCTCCCTGTTCTACAGTGAGAGGCCGCAGATCCCTTTGTGTGAAAACGACCA
GGGAAATCGTGAAAACCCAGAATTCATTCTTGGAGGGGCCACCAGGACTGATATCTGCCAGGGAGAGC
TGGGAGACTGCTGGCTATTAGCCGCCATCGCCTCCCTTACGCTTAATCAAAAAGCACTGGCCAGAGTCAT
CCCCCAGGACCAAAGCTTTGGCCCTGGTTATGCCGGGATATTCCATTTCCAGTTCTGGCAGCACAGTGAG
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ACCACAACGAGTTCTGGAGCGCCTTCTGGAAAAAGCCTACGCCAAGCTAAATGGGAGCTATGAAGCTCT
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GAGGCCCCCGAGAATCTATGAGATTCTAGAGAAGGCTTTGAAGAGAGGCTCCCTGCTGGGCTGCTTCA
TTGATACCAAGAAGTGCTGCAGAATCTGAGGCCCGGACGCCGTTTGGTCTTATTAAGGGTCATGCCTACAG
TGTAACGGGAATTGACCAGGTAAGCTTCCGAGGCCAGAGAATCGAGCTCATCCGAATCCGGAACCCCTTGG
GGCCAGTTGAGTGGAACGGGTCGTGGAGCGACAGGATGGCATTAAAGGACTTCAAGGCCACTTTGATA
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GCTGATTGTGCTCAGGTATGCGGATGAGGAGCTCCAGCTGGACTTCGATGACTTCCCTCAACTGCCTGGTC
CGGCTGGAGAATGCGAGCCGGTGTCCAGGCTCTCAGTACAAAGAACAAGGAGTTCATTTCATCTCAATA
TAAATGAGTTCATCCATTTGACAATGAACATC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG211502 representing NM_016452
 Red=Cloning site Green=Tags(s)

MPYL YRAPGPQ AHPV PKDARITHSSGQSFEQMRQECLQRGTLFEDADFPASNSSLFYSERPQIPFVWKRPG
 GEIVKNPEFILGGATRTD ICQGELGDCWLLAAIASLTLNQKALARVIPQDQSFPGYAGIFHFQFWQHSE
 WLDVVIDDRLPTFRDRLVFLHSADHNEFWSALLEKAYAKLNGSYEALKGGS AIEAMEDFTGGVAETFQTK
 EAPENFYEILEKALKRGSLLGCFIDTRSAE SEARTPFGLIKGHAYSVTGIDQV SFRGRIELIRIRNPW
 GQVEWNGSWSDRMAFKDFKAHFDKVEICNLTPDALEEDA ITHKWEVTVHQGSWVRGSTAGGCRNFLDTFWT
 NPQIKLSL TEKDEGQECSFLVALMQKDRRKLKRFGANVLTIGYAIYEC PKDEHLNKDFFRYHASRARS
 KTFINLREVS DRFKLPPGEYILIPSTFEPHQEADFLRIFSEKKAITRMDGNVDIDLPEPPKPTPPDQE
 TEEEQRFRALFEQVAGEDMEVTAEELEYVLNAV LQKKKDIKFKKLSLISCKNIISLMDTSGNGKLEFDEF
 KVFWDK LKQWINLFLRFDADKSGTMSTYELRTALKAAGFQLSSHLLQLIVLRYADEELQLDFDDL NCLV
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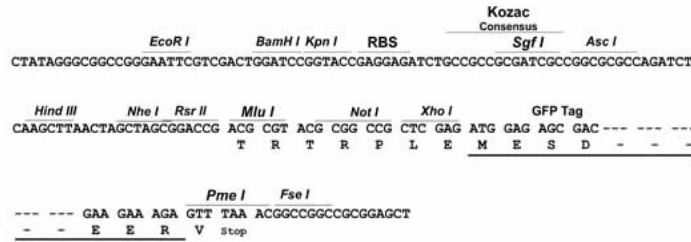
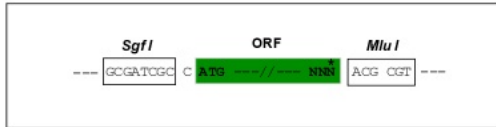
TRTRPLE - GFP Tag - V

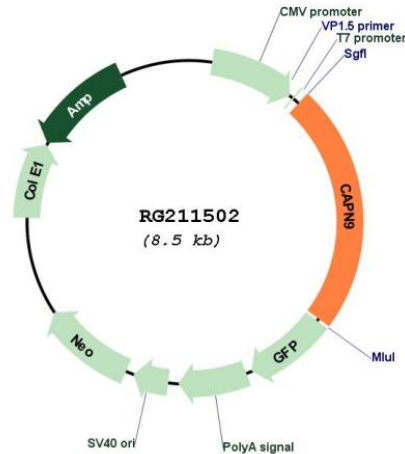
Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:


ACCN: NM_016452

ORF Size: 1992 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_016452.2](#), [NP_057536.1](#)

RefSeq Size: 2484 bp

RefSeq ORF: 1995 bp

Locus ID: 10753

UniProt ID: [O14815](#)

Cytogenetics: 1q42.2

Protein Families: Druggable Genome, Protease

Gene Summary: Calpains are ubiquitous, well-conserved family of calcium-dependent, cysteine proteases. The calpain proteins are heterodimers consisting of an invariant small subunit and variable large subunits. The large subunit possesses a cysteine protease domain, and both subunits possess calcium-binding domains. Calpains have been implicated in neurodegenerative processes, as their activation can be triggered by calcium influx and oxidative stress. The protein encoded by this gene is expressed predominantly in stomach and small intestine and may have specialized functions in the digestive tract. This gene is thought to be associated with gastric cancer. Multiple alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]