

Product datasheet for **RG215171**

Calpain 9 (CAPN9) (NM_006615) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Calpain 9 (CAPN9) (NM_006615) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Calpain 9
Synonyms:	GC36; nCL-4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG215171 representing NM_006615
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCTTACCTCTACCGGCCCCAGGGCCTCAGGCACACCCGGTCCCAAGGACGCCGGATCACCCACT
 CCTCAGGCCAGAGCTTTGAGCAAATGAGGCAGGAGTGCCTGCAGAGAGGCCACCTGTTTGAGGATGCAGA
 CTTCCAGCCAGCAATTCCTCCCTGTTCTACAGTGAGAGGCCGCAGATCCCTTTGTGTGAAAACGACCA
 GGGGAAATCGTGAAAACCCAGAATTCATTCTTGGAGGGGCCACAGGACTGATATCTGCCAGGGAGAGC
 TGGGAGACTGCTGGCTATTAGCCGCCATCGCCTCCCTTACGCTTAATCAAAAAGCACTGGCCAGAGTCAT
 CCCCCAGACCAAAGCTTTGGCCCTGGTTATGCCGGGATATTCCATTTCCAGTTCTGGCAGCACAGTGAG
 TGGCTGGAGCTGGTGATCGATGACCGCCTGCCACCTCAGGGACCGCTTGGTTTTCTCCACTCTGCCG
 ACCACAACGAGTCTGGAGCGCCTTGTGGAAAAGCCTACGCCAAGCTAAATGGGAGCTATGAAGCTCT
 GAAGGGAGGCAGCGCCATCGAGGCCATGGAAGACTTCACTGGGGTGTGGCAGAGACCTCCAAACTAAA
 GAGGCCCCCGAGAATCTATGAGATTCTAGAGAAGGCTTTGAAGAGAGGCTCCCTGCTGGGCTGCTTCA
 TTGATACCAAGTGTGCAGAATCTGAGGCCCGGACGCCGTTTGGTCTTATTAAGGGTCATGCCTACAG
 TGTAACGGGAATTGACCAGGTAAGCTTCCGAGGCCAGAGAATCGAGCTCATCCGAATCCGGAACCCCTTGG
 GGCCAGGTTGAGTGGAACGGGTCGTGGAGCGACAGTTCTCCGAGTGGCGTTCTGTTGGTCCAGCTGAGC
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 CTTTGATAAAGTGGAGATCTGCAACCTCACTCCCGATGCCCTGGAGGAAGACGCGATCCACAAATGGGAG
 GTGACGGTCCATCAGGGAAGCTGGGTCGCGGCTCCACGGCTGGGGCTGCCCAATTTCTGGATACCT
 TTTGGACCAATCCACAAATAAAATTGTCTGACTGAGAAAGATGAGGGGCAGGAGGAGTGTAGTTTCT
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 GCCATTTATGAGTGCCCTGACAAAGACGAACACCTGAACAAAGACTTCTTCAGATACCACGCTTCTCGGG
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 CCTGATCCCAGCACTTTTGAGCCCCACCAGGAAGCTGATTTCTGTCTGAGAATCTTTTCAGAGAAAAA
 GCCATTACCCGGGATATGGATGGAAATGTAGACATTGACCTTCTGAGCCTCCAAAGCCAACTCCACCTG
 ACCAGGAGACAGAGGAGGAGCAGCGTTTCGGGCTCTGTTGAACAAGTCGCTGGTGAGGACATGGAGGT
 GACAGCAGAGGAACTTGAGTATGTTTTAAATGCTGTGCTGCAAAAAGAAAAGGACATCAAATTAAGAAG
 CTAAGCCTGATCTCCTGTAAAAACATCATTTCCTGATGGACACCAGCGCAATGGGAAGCTGGAGTTTG
 ATGAATTCAAAGTGTCTGGGACAAGCTGAAGCAGTGGATTAACCTTTTCTTCGGTTTGTGCTGACAA
 GTCCGGCACCATGTCTACCTATGAACTACGGACTGCACCTGAAAGCTGCAGGCTTTCAGCTGAGCAGCCAC
 CTCTGACAGTGTGCTCAGGTATGCGGATGAGGAGCTCCAGCTGGACTTCGATGACTTCTCAACT
 GCCTGGTCCGGCTGGAGAATGCGAGCCGGTGTCCAGGCTCTCAGTACAAAGAACAAGGAGTTCATTCA
 TCTCAATATAAATGAGTTCATCCATTTGACAATGAACATC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG215171 representing NM_006615
Red=Cloning site Green=Tags(s)

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MPYL YRAPGPQAHPVPKDARITHSSGQSFEQMRQECLQRGTLFEDADFPASNSSLFYSERPQIPFVWKR
GEIVKNPEFILGGATRTDICQELGDCWLLAAIASLTLNQKALARVIPQDQSFQGYAGIFHFQFQWHS
WLDVVIDDRLPTFRDRLVFLHSADHNEFWSALLEKAYAKLNGSYEALKGGSAAIEAMEDFTGGVAETFQ
TK EAPENFYEILEKALKRGSLLGCFIDTRSAESEARTPFGLIKGHAYSVTGIDQVSVFRGRIELIRIN
PW GQVEWNGSWSDSSPEWRSVGPAPAEQKRLCHTALDDGEFWMAFKDFKAHFDKVEICNLTPDALEED
AIHKWE VTVHQGSWVRGSTAGGCRNFLDTFWTNPQIKLSLTEKDEGQEECSFLVALMQKDRRKLK
RFGANVLTIGY AIYECDPKDEHLNKDFFRYHASRARSKTFINLREVSDRFKLPPGEYILIPSTFEP
HQEADFCLRIFSEKK AITRDMGNDVIDLPEPKPTPPDQETEEEQFRFRALFEQVAGEDMEVTAEE
LEYLVNAVLQKKDKFKK LSLISCKNIISLMDTSGNGKLEFDEFKVFWDKQWLNFLRFDADKSGT
MSTYELRTALKAAGQLSSH LLQLIVLRYADEELQLDFDDFLNCLVRLLENASRVFQALSTKNKEF
IHLNINEFIHLMNII
    
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TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_006615

ORF Size: 2070 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_006615.3](#)

RefSeq Size: 2362 bp

RefSeq ORF: 2073 bp

Locus ID: 10753

UniProt ID: [O14815](#)

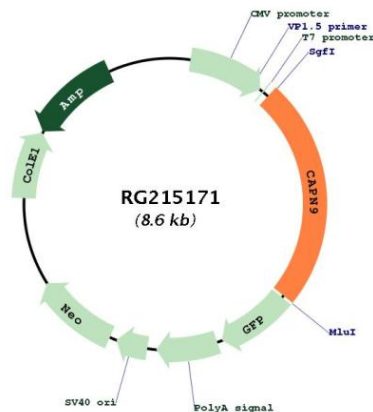
Cytogenetics: 1q42.2

Domains: Calpain_III, EFh

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]

Product images:



Circular map for RG215171