

Product datasheet for **RG234758**

Calpain 1 (CAPN1) (NM_001198868) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Calpain 1 (CAPN1) (NM_001198868) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Calpain 1
Synonyms:	CANP; CANP1; CANPL1; muCANP; muCL; SPG76
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG234758 representing NM_001198868
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCGGAGGAGATCATCACGCCGTGTACTGCACTGGGGTGTACAGCCCAAGTCAGAAGCAGCGGGCCA
 GGGAGCTGGGCTGGGCCGCCATGAGAATGCCATCAAGTACCTGGGCCAGGATTATGAGCAGCTGCGGGT
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 TCAGAGGGCTTTGAGGACTTCACAGGCGGGGTTACCGAGTGGTACGAGTTGCGCAAGGCTCCAGTGACC
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 CAAGATGGAGGACGGGGAGTTCGGATGTATTCCGAGACTTCATGCGGGAGTTCACCCGCTGGAGATC
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 GCTTCAGCCTAGAGTCGTGCCGACGATGGTGAACCTCATGGATCGTGATGGCAATGGGAAGCTGGGCT
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 AGCTGTACGAGCTCATCATCACCCGCTACTCGGAGCCGACCTGGCGGTGCGACTTTGACAATTCGTTTG
 CTGCTGGTGGGCTAGAGACCATGTTCCGATTTTTCAAACCTCTGGACACAGATCTGGATGGAGTTGTG
 ACCTTTGACTTGTTTAAGTGGTTGCAGCTGACCATGTTTGCA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG234758 representing NM_001198868
 Red=Cloning site Green=Tags(s)

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MSEEIITPVYCTGVSAQVQKQRARELGLGRHENAICYLGGDYEQLRVRCVLSGTLFRDEAFPPVPQSLGY
KDLGPNSSKTYGIKWKRPTTELLSNPQFIVDGA TRTDICQALGDCWLLAAIASLTLNDTLLHRVPHGQS
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ISVKELRTLNR IISKHKDLRTKGFSL ESCRSMVNLMDRDGNGKLG LVEFNILWNRIRNYLSIFRKFDLD
KSGSMSAYEMRMAIESAGFKLNKKLYELIITRYSEPD LAVDFDNFVCCLVRLETMFRFFKTLDTDL DGVV
TFDLFKWLQLTMFA
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TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001198868

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:

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_001198868.2](#)

RefSeq Size: 3125 bp

RefSeq ORF: 2145 bp

Locus ID: 823

UniProt ID: [P07384](#)

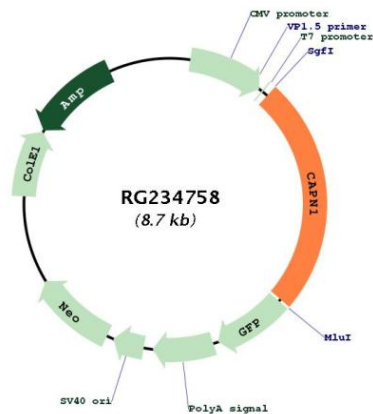
Cytogenetics: 11q13.1

Protein Families: Druggable Genome, Protease

Protein Pathways: Alzheimer's disease, Apoptosis

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 RG234758