

## Product datasheet for **RG216674**

### Calpain 13 (CAPN13) (NM\_144575) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Calpain 13 (CAPN13) (NM_144575) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CAPN13
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide  
Sequence:

>RG216674 representing NM\_144575  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGGCGTATTACCAGGAGCCTTCAGTGGAGACCTCCATCATCAAGTTCAAAGACCAGGACTTTACCACCT  
TGCGGGATCACTGCCTGAGCATGGGCCGGACGTTTAAGGATGAGACATTCCTGCAGCAGATTCTCCAT  
AGGCCAGAAGCTGCTCCAGGAAAAACGCCTCTCCAATGTGATATGGAAGCGGCCACAGGATCTACCAGG  
GGTCTCTCACTTCATCCTGGATGATATAAGCAGATTTGACATCCAACAAGGAGGCGCAGCTGACTGCT  
GGTTCTGGCAGCACTGGGATCCTTGACTCAGAACCACAGTACAGGCAGAAGATCCTGATGGTCCAAAAG  
CTTTTACACCAGTATGCTGGCATTTCCTGTTCCGGTCTGGCAATGTGGCCAGTGGTGGAAAGTGGT  
ATTGATGACCGCCTACCTGTCCAGGAGATAAATGCCTCTTTGTGCGTCTCGCCACCAAAACCAAGAGT  
TCTGGCCCTGCCTGCTGGAGAAGCCTATGCCAAGCTGCTCGGATCCTATTCGATCTGCACTATGGCTT  
CCTCGAGGATGCCCTGGTGGACCTCACAGGAGGCGTGATCACCAACATCCATCTGCACTCTCCCCTGTG  
GACCTGGTGAAGCAGTGAAGACAGCGACCAAGGCAGGCTCCCTGATAACCTGTGCCACTCCAAGTGGGC  
CAACAGATACAGCACAGGCGATGGAGAATGGGCTGGTGTGCTCCATGCCTACACTGTGACTGGGGCTGA  
GCAGATTCATACCGAAGGGGCTGGGAAGAAATATCTCCCTGTGGAACCCCTGGGGCTGGGGCGAGACC  
GAATGGAGAGGGCGCTGGAGTGTGGGTCTCAGGAGTGGGAGGAAACCTGTGATCCGCGGAAAAGCCAGC  
TACATAAGAAACGGGAAGATGGCGAGTTTTGGATGTCAAGATTTCCAACAGAAATTCATCGCCAT  
GTTTTATGTAGCGAAATCCAATTACCCTGGACCATGGAACACACTCCACGAAGGATGGTCCAAATA  
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CTGTGCAAGGCCAATGGAAGGCACCAATGTTGTCGTGTGCGTCACAGTTGCTGTACACCATCAAATTT  
GAAAGCAGAAGATGCAAAATTTCACTCGATTTCCAAGTGATTCTGGCTGGCTCACAGCGGTTCCGGGAG  
AAATTTCCACCCGTGTTTTTTCTCGTTCCAGAAACACTGTCCAAGCTCAAATAATAAATTCGCGCGCA  
ACTTCACCATGACTTACCATCTGAGCCCTGGGAACTATGTTGTGGTTGCACAGACACGGAGAAAATCAGC  
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AGAATGAAGGGAAGCCCTCAGAACATGGCTCCCAACAAAGCATTTTCAACAGATATGCTCAGCAGAGGC  
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GTTCTCCTTAGATGAGTGCCGACGCTTGGTGGCTCTGATGGAAGTGAATGGCGGCTAGACCAA  
GAGGAGTTTGCAGGACTGTGGAAGCGCCTTGTTCCTACTACCAGCATGTTTTCCAGAAGGTTTACAGCAAGCC  
CTGGAGTCTCCTGAGCTCGGACTTGTGGAAGGCCATAGAGAATACAGACTTCTCAGAGGGATCTTCAT  
CAGCCGTGAGCTGCTGCATCTGGTGACCCTCAGGTACAGCGACAGCGTCGGCAGGGTCAGCTTCCCAGC  
CTGGTCTGCTTCTGATGCGGCTTGAAGCCATGGCAAAGACCTTCCGCAACCTCTCTAAGGATGGAAAAG  
GACTCTACCTGACAGAAATGGAGTGGATGAGCCTGGTCTGTACAAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG216674 representing NM\_144575  
 Red=Cloning site Green=Tags(s)

MAYYQEPSVETSIIKFKDQDFTTLRDHCLSMGRTFKDETFPAADSSIGQKLLQEKRLSNVIWKRQDLPG  
 GPPHFILDDISRFDIQQGGAADCWFLAALGSLTQNPQYRQKILMVQSFHQYAGIFRFRWQCGQWVEVV  
 IDDRLPVQGDKCLFVRRRHQNFQFWPCLLEKAYAKLLGSYSDLHYGFLEDALVDLTGGVITNIHLHSSPV  
 DLVKAVKTATKAGSLITCATPSGPTDTAQAMENGLVSLHAYTVTGAEQIQYRRGWEEIISLWNPWGGET  
 EWRGRWSDGSQEWEEETCDPRKSQLHKKREDGEFWMSCQDFQKFIAMFICSEIPITLDHGNTLHEGWSQI  
 MFRKQVILGNTAGPRNDAQNFNSVQEPMEGTNVVVCVTVAVTPSNLKAEDAKFPLDFQVILAGSQRFRE  
 KFPPVFFSSFRNTVQSSNNKFRNFTMTYHLSPGNYVVVAQTRRKSAEFLLRIFLKMPSDRHLSHFNL  
 RMKGPSEHGSQQSIFNRYAQQRLDIDATLQQLLNQELLTGPPGDMFSLDECRSLVALMELKVNGRLDQ  
 EEFARLWKRLVHYQHVFQKVQTSFGVLLSSDLWKAIENTDFLRGIFISRELLHLVTLRYSDSVGRVSFPS  
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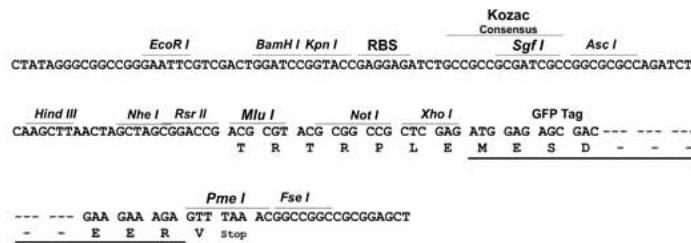
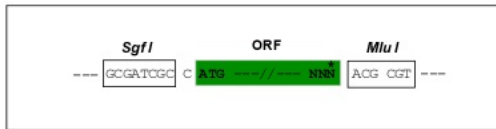
TRTRPLE - GFP Tag - V

**Restriction Sites:**

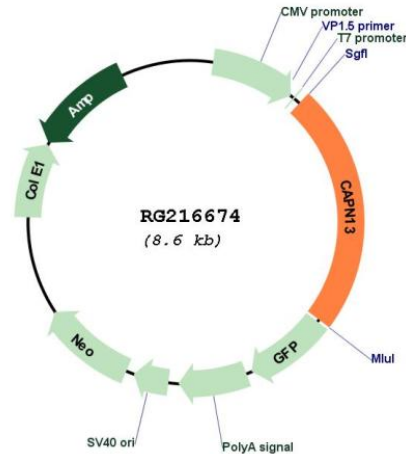
SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



## Plasmid Map:



ACCN: NM\_144575

ORF Size: 2007 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\\_144575.2](#), [NP\\_653176.2](#)

RefSeq Size: 2690 bp

RefSeq ORF: 2010 bp

Locus ID: 92291

UniProt ID: [Q6MZZ7](#)

Cytogenetics: 2p23.1

Domains: Calpain\_III

Protein Families: Druggable Genome, Protease

**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 a member of the calpain large subunit family. [provided by RefSeq, Jun 2012]