

## Product datasheet for **RG200539**

### Calpain 6 (CAPN6) (NM\_014289) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Calpain 6 (CAPN6) (NM_014289) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Calpain 6
Synonyms:	CalpM; CANPX; CAPNX; DJ914P14.1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG200539 representing NM\_014289  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGGTCCTCCTCTGAAGCTCTTCAAAAACCAGAAATACCAGGAAGTGAAGCAGGAATGCATCAAAGACA  
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 TCTGAAGTCTCTGTACCTGCGTAAGAAGGGTGGTCCAAGTCCAAAGTCAAGCAAGGCCACATCAGCTTC  
 AAGGTTATTTCCAGCGATGATCTCACTGAGCTC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG200539 representing NM\_014289  
 Red=Cloning site Green=Tags(s)

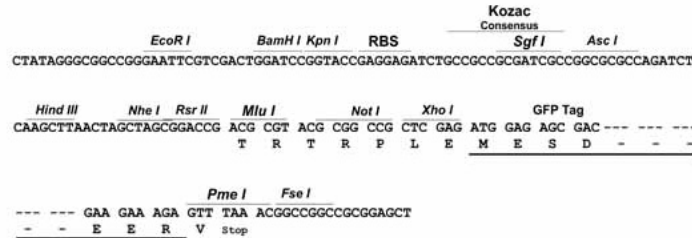
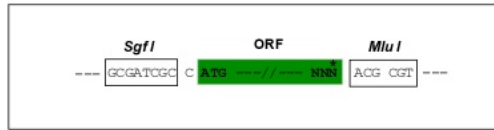
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 KELESVLGCWTVDDPLMNRSGGCYNNRDTFLQNPQYIFVTPEDGHKVMISLQKQDLRTYRRMGRPDNYI  
 IGFELEFKVEMNRKFRLLHLYIQERAGTSTYIDTRTVFLSKYLKKNYVLPVTFMQHGRTESEFLRIFSEV  
 PVQLRELTLDMPKMSCWNLARGYPKVVTQITVHSAEDLEKKYANETVNPYLVIKCGKEEVRSPVQKNTVH  
 AIFDTQAIFYRRTDIPYIIVQVWNSRKFCDQFLGQVTLADPSCDRDLKSLYLRKKGPTAKVKQGHISF  
 KVISSDDLTEL

**TRTRPLE** - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



ACCN: NM\_014289

ORF Size: 1923 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\\_014289.4](#)

RefSeq Size: 3568 bp

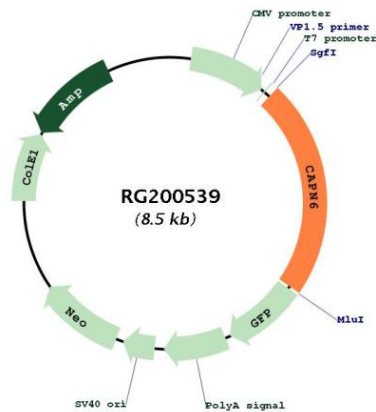
RefSeq ORF: 1926 bp

Locus ID: 827

UniProt ID: [Q9Y6Q1](#)

<b>Cytogenetics:</b>	Xq23
<b>Domains:</b>	C2, Calpain_III
<b>Protein Families:</b>	Druggable Genome, Protease
<b>Gene Summary:</b>	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 highly expressed in the placenta. Its C-terminal region lacks any homology to the calmodulin-like domain of other calpains. The protein lacks critical active site residues and thus is suggested to be proteolytically inactive. The protein may play a role in tumor formation by inhibiting apoptosis and promoting angiogenesis. [provided by RefSeq, Nov 2009]

**Product images:**



Circular map for RG200539