

Product datasheet for **RG208200**

Calpain 7 (CAPN7) (NM_014296) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Calpain 7 (CAPN7) (NM_014296) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Calpain 7
Synonyms:	CALPAIN7; PALBH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG208200 representing NM_014296
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGACGCCACAGCACTGGAGCGGGACGCTGTGCAGTTCGCCGCTCTGGCGGTTACGCGGACCACGAAG
 GCCGCTACTCCGAGGCGGTGTTTTATTACAAGGAAGCTGCACAAGCCTTAATTTATGCTGAGATGGCAGG
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 CTGGGCCGTTACTGATTGAGCTACGAGGACCAAGGCAATATAGCGTTGGATTTGAGTTGTAACAGTTTC
 TACTCTAGGAGATCCTGGTCCCATGGCTTTCTGAGGAAATCTAGTGGTACTATAGGTGTGGGTTTTGC
 TACCTGGAATTAGAAAATATACCTTCTGGGATCTTCAATATCATTCTAGTACCTTTTTGCCTAAACAAG
 AAGGACCTTTTTTCTTGGACTTTAATAGTATTATCCCATCAAGATCACCAACTTCAG

ACCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG208200 representing NM_014296
 Red=Cloning site Green=Tags(s)

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MDATALERDAVQFARLAVQRDHEGRYSEAVFYKQAAQALIIYAEMAGSSLENIQEKITEYLERVQALHSA
VQSKSADPLKSKHQDLERAHFLVTQAFDEDEKENVEDAIELYTEAVDLCLKTSYETADKVLQNKLKQLA
RQALDRAEALGEPLTKPVGKISSTSVKPKPPPERAHFPLGANPFLERPQSFISQSCDAQGQRYTAEIE
VLRTTSKINGIEYVPMNVDLRERFAYPMPFCDRWGKLPSPKQTTFSKWVRPEDLTNNPTMIYTVSSF
SIKQTI VSDCSFVASLAISAAYERRFNKKLITGIIYPQNKDGEPEYNPCGKYMVKLHLNGVPRKVIIDDQ
LPVDHKGELLCSYSNNKSELWVSLIEKAYMKVMGGYDFPGSNSNIDLHALTGWIPERIAMHSDSQTF SKD
NSFRMLYQRFHKGDVLTITASTGMMTEAEGEKWGLVPTHAYAVLDIREFKGLRFIQLKNPWSHLRWKGRYS
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IRINSPHYLTKIKLTPGTHTFTLVVSQYEKQNTIHYTVRVYSACSFTFSKIPSPYTL SKRINGKWSGQS
AGGCGNFQETHKNNPIYQFHIEKTGPLLIELRGPRQYSVGFVTVSTLGDGPHGFLRKSSGDYRCGFC
YLELENIPSGIFNIIPSTFLPKQEGPFLLDFNSIIPKIKITQLQ
  
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TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM_014296

ORF Size: 2439 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_014296.2](#), [NP_055111.1](#)

RefSeq Size: 4385 bp

RefSeq ORF: 2442 bp

Locus ID: 23473

UniProt ID: [Q9Y6W3](#)

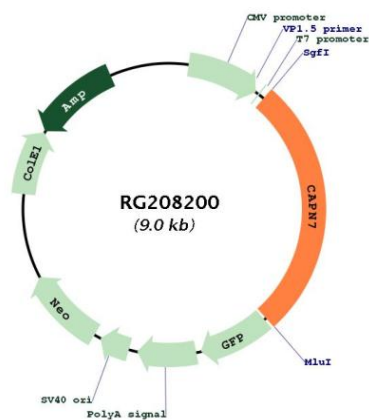
Cytogenetics: 3p25.1

Domains: Calpain_III, MIT

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 function of the protein encoded by this gene is not known. An orthologue has been found in mouse but it seems to diverge from other family members. The mouse orthologue is thought to be calcium independent with protease activity. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG208200