

Product datasheet for **RC208200**

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:	Myc-DDK
Symbol:	Calpain 7
Synonyms:	CALPAIN7; PALBH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC208200 ORF sequence

Red=Cloning site Blue=ORF Green=Tags(s)

 TTTTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**

 ATGGACGCCACAGCACTGGAGCGGGACGCTGTGCAGTTTCGCCGCTCTGGCGGTTACGCGGACCACGAAG
GCCGCTACTCCGAGGCGGTGTTTTATTACAAGGAAGCTGCACAAGCCTTAATTTATGCTGAGATGGCAGG
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AAGGACCTTTTTTCTTGACTTTAATAGTATTATCCCATCAAGATCACACAACCTTCAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC208200 protein sequence
 Red=Cloning site Green=Tags(s)

MDATALERDAVQFARLAVQRDHEGRYSEAVFYKEAAQALIYAEMAGSSLENIQEKITEYLERVQALHSA
 VQSKSADPLKSKHQLDLERAHFLVTQAFDEDEKENVEDAIELYTEAVDLCLKTSYETADKVLQNKLKQLA
 RQALDRAEALGEPLTKPVGKISSTSVKPKPPPERAHFPLGANPFLERPQSFISPQSCDAQGQRYTAAEIE
 VLRTTSKINGIEYVPMNVDLRERFAYPMPCDRWGKLPLSPKQKTTFSKWVRPEDLTNNPTMIYTVSSF
 SIKQTIYSDCSFVASLAISAAYERRFNKKLITGIIYPQNKDGEPEYNPCGKYMVKLHLNGVPRKVIIDDQ
 LPVDHKGELLCSYSNNKSELWVSLIEKAYMKVMGGYDFPGSNSNIDLHALTGWIPERIAMHSDSQTFSKD
 NSFRMLYQRFHKGDVLTASTGMMTEAEGEKWGLVPTHAYAVLDIREFKGLRFIQLKNPWSHLRWKGYS
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 KDAYSLANNPQYKLEVQCPQGGAAVVLLSRHITDKDDFANNREFITMVVYKTDGKKVYYPADPPPYIDG
 IRINSPHYLTKIKLTPGTHTFTLVVSQYEKQNTIHYTVRVYSACSFTFSKIPSPYTLKSRINGKWSGQS
 AGGCGNFQETHKNNPIYQFHIEKTGPLLIELRGPRQYSVGFEVTVSTLGDPGPHGFLRKSSGDYRCGFC
 YLELENIPSGIFNIIPSTFLPKQEGPFFLDFNSIPIKITQLQ

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Chromatograms: https://cdn.origene.com/chromatograms/mk6127_b09.zip

Restriction Sites: SgfI-MluI

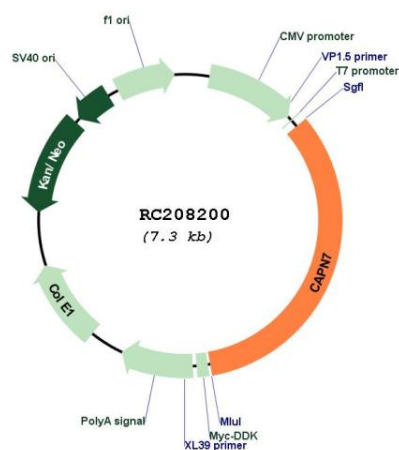
Cloning Scheme:



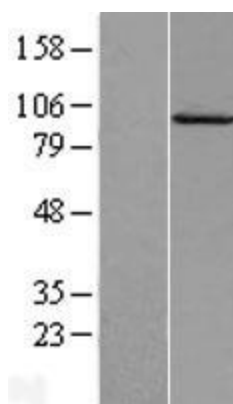
ACCN:	NM_014296
ORF Size:	2439 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_014296.3
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
MW:	92.7 kDa
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]

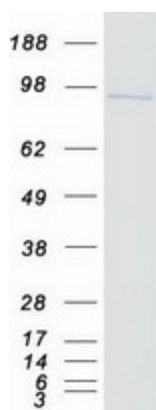
Product images:



Circular map for RC208200



Western blot validation of overexpression lysate (Cat# [LY402305]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208200 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CAPN7 protein (Cat# [TP308200]). The protein was produced from HEK293T cells transfected with CAPN7 cDNA clone (Cat# RC208200) using MegaTran 2.0 (Cat# [TT210002]).