

## Product datasheet for RC201169

### PSMA7 (NM\_002792) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PSMA7 (NM_002792) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PSMA7
Synonyms:	C6; HEL-S-276; HSPC; RC6-1; XAPC7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC201169 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAGCTACGACCGCCATCACCGTCTTCTCGCCGACGGCCACCTCTCCAAGTGGAGTACGCGCAGG  
AGGCCGTCAAGAAGGGCTCGACCGCGTTGGTGTTCGAGGAAGAGACATTGTTGTTCTTGGTGTGGAGAA  
GAAGTCAGTGGCCAACTGCAGGATGAAAGAACAGTGCAGGAGATCTGTGCTTTGGATGACAACGTCTGC  
ATGGCCTTTCAGGCCTCACCGCGATGCAAGGATAGTCATCAACAGGGCCCGGGTGGAGTGCCAGAGCC  
ACCGGCTGACTGTGGAGGACCCGGTCACTGTGGAGTACATCACCCGCTACATCGCCAGTCTGAAGCAGCG  
TTATACGCAGAGCAATGGGCGCAGGCCGTTTGGCATCTCTGCCCTCATCGTGGGTTTCGACTTTGATGGC  
ACTCCTAGGCTCTATCAGACTGACCCCTCGGGCACATACCATGCCTGGAAGGCCAATGCCATAGGCCGGG  
GTGCCAAGTCAGTGCCTGAGTTCCTGGAGAAGAACTATACTGACGAAGCCATTGAAACAGATGATCTGAC  
CATTAAGCTGGTATCAAGGCACTCCTGGAAGTGGTTCAGTCAGGTGGCAAAAACATTGAACTTGCTGTC  
ATGAGGCGAGATCAATCCCTCAAGATTTAAATCCTGAAGAAATTGAGAAGTATGTTGCTGAAATTGAAA  
AAGAAAAAGAAGAAAACGAAAAGAAGAAACAAAAGAAAGCATCA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC201169 protein sequence  
 Red=Cloning site Green=Tags(s)

MSYDRAITVFS PDGHLFQVEYAQEAVKKGSTAVGVRGRDIVVLGVEKKSVAKLQDERTVRKICALDDNVC  
 MAFAGL TADARI VINRARVEQC SHRLTVEDPVTVEYITRYIASLKQRYTQSNRRPFGISALIVGFDFDG  
 TPRLYQTDPSGT YHAWKANAIGRGAKSVREFLEKNYTD EAIETDDLTIKLVIKALLEVVQSGGKNI ELAV  
 MRRDQSLKILNPEEIEKYVAEIEKEKEENEKKKQKKAS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

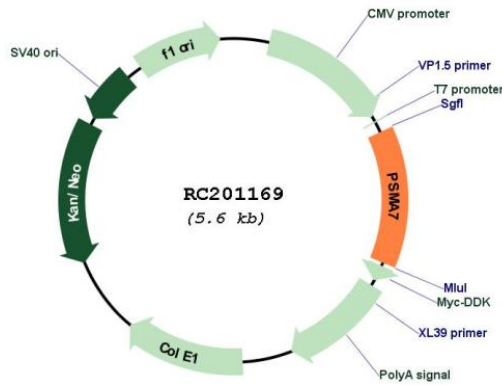
Chromatograms: [https://cdn.origene.com/chromatograms/mk6083\\_f09.zip](https://cdn.origene.com/chromatograms/mk6083_f09.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_002792

ORF Size: 744 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_002792.4](#)

**RefSeq Size:** 1050 bp

**RefSeq ORF:** 747 bp

**Locus ID:** 5688

**UniProt ID:** [Q14818](#)

**Cytogenetics:** 20q13.33

**Domains:** proteasome

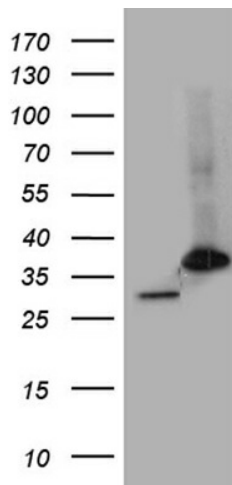
**Protein Families:** Druggable Genome, Protease

**Protein Pathways:** Proteasome

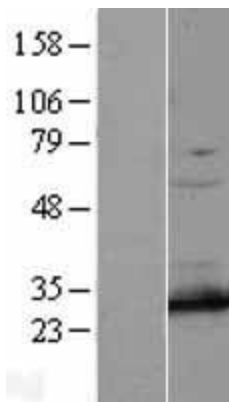
**MW:** 27.9 kDa

**Gene Summary:**

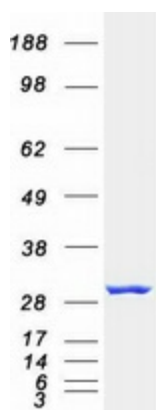
The 26S proteasome is a multicatalytic proteinase complex with a highly ordered structure composed of 2 complexes, a 20S core and a 19S regulator. The 20S core is composed of 4 rings of 28 non-identical subunits; 2 rings are composed of 7 alpha subunits and 2 rings are composed of 7 beta subunits. Proteasomes are distributed throughout eukaryotic cells at a high concentration and cleave peptides in an ATP/ubiquitin-dependent process in a non-lysosomal pathway. This gene encodes a member of the peptidase T1A family that functions as a 20S core alpha subunit. The encoded protein interacts with the hepatitis B virus X protein and plays a role in regulating hepatitis C virus internal ribosome entry site (IRES) activity, an activity essential for viral replication. The encoded protein also plays a role in the cellular stress response by regulating hypoxia-inducible factor-1alpha. A pseudogene of this gene is located on the long arm of chromosome 9. [provided by RefSeq, Jul 2012]

**Product images:**


HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PSMA7 (Cat# RC201169, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PSMA7 (Cat# [TA810347])(1:2000). Positive lysates [LY400987] (100ug) and [LC400987] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400987]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201169 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PSMA7 protein (Cat# [TP301169]). The protein was produced from HEK293T cells transfected with PSMA7 cDNA clone (Cat# RC201169) using MegaTran 2.0 (Cat# [TT210002]).