

Product datasheet for RC212047

PSMG1 (NM_203433) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PSMG1 (NM_203433) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PSMG1
Synonyms:	C21LRP; DSCR2; LRPC21; PAC-1; PAC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC212047 representing NM_203433 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGCCACGTTCTTCGGAGAGGTGGTGAAGGCGCCGTGCCGAGCTGGGACTGAGGACGAAGAGGAGG
AGGAGGAGGGGCGGAGGGAGACGCCCGAGGACAGGGAGGTGCGTCTGCAGCTGGCGCGGAAGAGGGAAGT
GCGGCTCCTTCGAAGACAAACAAAACATCTTTGGAAGTTCTTTGCTAGAAAAATATCCGTGCTCCAAG
TTTATAATTGCTATAGGAAATAATGCAGTAGCATTCTGTGCATCATTTGTTATGAATTCAGGAGTCTGGG
AGGAAGTTGGTTGTGCTAAACTCTGGAATGAATGGTGTAGAACAACAGACACTACACATCTGTCCTCCAC
AGAGGCTTTTTGTGTGTTTTATCATCTAAAATCCAATCCCTCGGTTTTTGGCTCTTGTCCAAGGAAGAAC
ATGCAGATAACTATTCTCACATGTCGACATGTTACCGATTATAAAACCTCAGAATCCACCGGCAGCCTTC
CTTCTCCTTTCCTGAGAGCCCTAAAAACACAGAATTTCAAAGACTCGGCGTGTGTTCCATTGCTAGAACA
ACCGAATATAGTACACGACCTTCTGCAGCAGTTCTAAGCTACTGTCAAGTATGGAAAAATCCCAGCAATT
CTGTACTTGTGTTATACTGATGTGATGAAATTAGACCTAATCACAGTGGAAGCTTTTAAGCCTATACTTT
CTACCAGAAGCTTGAAGGTTTGGTTAAGAATATCCCCAAAGCACTGAGATACTAAAGAAATTGATGAC
AACAAATGAGATTCAGAGTAACATTTATACA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC212047 representing NM_203433
 Red=Cloning site Green=Tags(s)

MAATFFGEVVKAPCRAGTEDEEEEEEGRETPEDEVRLQLARKREVRLRRQTKTSLEVSLLLEKYPCK
 FIIAIGNNAVAFLLSSFVMNSGVWEEVGCALWNEWCRITDTHLSSTEAFVYFHLKSNPSVFGSCPRKN
 MQITILTCRHVTDYKTSESTGSLPSPFLRALKTQNFKDSACCPLEEQPNIVHDLPAAVLSYCQVWKIPAI
 LYL CYTDVMKLDLITVEAFKPILSTRSLKGLVKNIPQSTEILKMLTTNEIQSNIYT

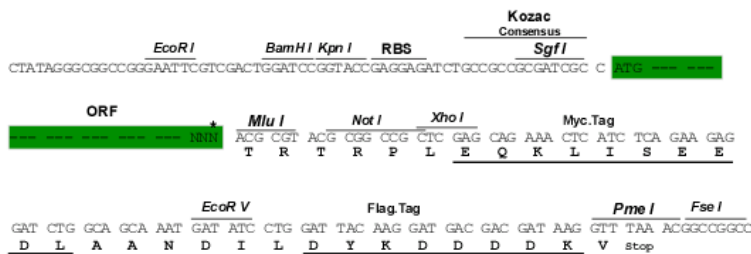
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8048_a12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_203433

ORF Size: 801 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_203433.2](#), [NP_982257.1](#)

RefSeq Size: 1083 bp

RefSeq ORF: 804 bp

Locus ID: 8624

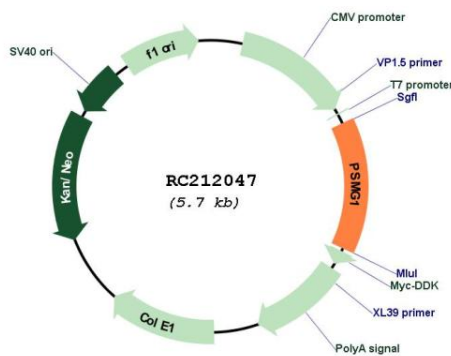
UniProt ID: [O95456](#)

Cytogenetics: 21q22.2

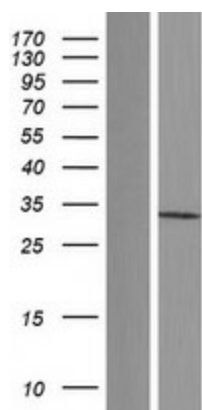
MW: 30.1 kDa

Gene Summary: Chaperone protein which promotes assembly of the 20S proteasome as part of a heterodimer with PSMG2. The PSMG1-PSMG2 heterodimer binds to the PSMA5 and PSMA7 proteasome subunits, promotes assembly of the proteasome alpha subunits into the heteroheptameric alpha ring and prevents alpha ring dimerization.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC212047



Western blot validation of overexpression lysate (Cat# [LY404289]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212047 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).