

## Product datasheet for **RG200550**

### PSMG1 (NM\_003720) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PSMG1 (NM_003720) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PSMG1
Synonyms:	C21LRP; DSCR2; LRPC21; PAC-1; PAC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG200550 representing NM_003720 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGGCCACGTTCTTCGGAGAGGTGGTGAAGGCGCCGTGCCGAGCTGGGACTGAGGACGAAGAGGAGG  
AGGAGGAGGGGCGGAGGGAGACGCCCGAGGACAGGGAGGTGCGTCTGCAGCTGGCGCGGAAGAGGGAAGT  
GCGGCTCCTTCGAAGACAAACAAAACATCTTTGGAAGTTCTTTGCTAGAAAAATATCCGTGCTCCAAG  
TTTATAATTGCTATAGGAAATAATGCAGTAGCATTCTGTGCATCATTTGTTATGAATTCAGGAGTCTGGG  
AGGAAGTTGGTTGTGCTAAACTCTGGAATGAATGGTGTAGAACAACAGACACTACACATCTGTCCTCCAC  
AGAGGCTTTTTGTGTGTTTTATCATCTAAAATCCAATCCCTCGGTTTTCTGTGTCAGTGCAGTTGCTAT  
GTTGCAGAAGATCAACAGTATCAGTGGCTGGAAGGTTTTGGCTCTTGTCCAAGGAAGAACATGCAGA  
TAACTATTCTCACATGTCGACATGTTACCGATTATAAACCTCAGAATCCACCGGCAGCCTTCTCTCC  
TTTCTGAGAGCCCTAAAACACAGAAATTTCAAAGACTCGGCGTGTGTCCATTGCTAGAACAACCGAAT  
ATAGTACACGACCTTCTGCAGCAGTCTAAGCTACTGTCAAGTATGGAAAATCCCGCAATTCTGTACT  
TGTGTTACTGATGTGATGAAATTAGACCTAATCACAGTGAAGCTTTAAGCCTATACTTTCTACCAG  
AAGCTTGAAGGGTTTGGTTAAGAATATCCCAAAAGCACTGAGATACTAAAGAAATTGATGACAACAAAT  
GAGATTCAGAGTAACATTTATACA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG200550 representing NM\_003720  
Red=Cloning site Green=Tags(s)

MAATFFGEVVKAPCRAGTEDEEEEEEGRETPEDEVRLQLARKREVRLRRQTKTSLEVSLLLEKYPCK  
 FIIAIGNNAVAFLLSSFVMNSGVWEEVGCACLWNEWCRTTDTTHLSSTEAFVYFHLKSNPSVFLCQCSCY  
 VAEDQQYQWLEKVFVGFSCPRKNMQITILTCRHVTDYKTSESTGSLPSPFLRALKTONFKDSACPLLEQPN  
 IVHDLPAAVLSYCQVWKIPAILYLCTYDVMKLDLITVEAFKPIILSTRSLKGLVKNIPQSTEILKKLMTTN  
 EIQSNIYT

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_003720

**ORF Size:** 864 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\\_003720.2](#), [NP\\_003711.1](#)

**RefSeq Size:** 1146 bp

**RefSeq ORF:** 867 bp

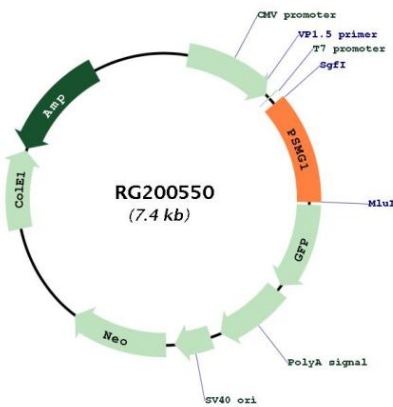
**Locus ID:** 8624

**UniProt ID:** [O95456](#)

**Cytogenetics:** 21q22.2

**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 RG200550