

## Product datasheet for RC203422

### PSMG2 (NM\_020232) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PSMG2 (NM_020232) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PSMG2
Synonyms:	CLAST3; HCCA3; HsT1707; MDS003; PAC2; TNFSF5IP1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC203422 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTTTCGTTCCCTGCGGGGAGTCGGCCCCGACCTTGCCGGCTTCACCCTCCTAATGCCAGCAGTATCTG  
TTGAAATGTTGGCCAGCTTGCAATGGATCTGATTATTTCTACACTGAATATGTCTAAGATTGGTTACTT  
CTATACCGATTGTCTTGTGCCAATGGTTGAAACAATCCATATGCGACCACAGAAGGAAATTC AACAGAA  
CTTAGCATAAATGCTGAAGTGTATTCATTGCCTTCAAGAAAGCTGGTGGCTCTACAGTTAAGATCCATTT  
TTATTAAGTATAAATCAAAGCCGTTCTGTGAAAACTGCTTTCCTGGGTGAAAAGCAGTGGCTGTGCCAG  
AGTCATTGTTCTTCAAGCAGTCATTCATATCAGCGTAATGATCTGCAGCTTCGTAGTACTCCCTCCGG  
TACCTACTTACACCTTCCATGCAAAAAAGTGTTCAAAATAAAATAAGAGCCTTAACTGGGAAGAAATGG  
AAAAAGCCGGTGCATTCTGAAATAGATGATTCAGGTTTTGTATCCGCATTCGGGAGGAGGTATCAC  
AAAAACTCTATGATGAAAGCTGTTCTAAAGAAATCAAATGGCAGTTCTGCTGAAATTTGTTTCAGAA  
GGGACAACATCCCAGATGCATTAGGTCTTGTGAGTATCTTAATGAGTGGCTTCAGATACTCAAACCAC  
TTAGCGATGACCCACAGTATCTGCCTCACGGTGGAAAATACCAAGTTCTTGGAGATTACTCTTTGGCAG  
TGGTCTTCCCCCTGCACCTTTTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC203422 protein sequence  
 Red=Cloning site Green=Tags(s)

MFVPCGESAPDLAGFTLLMPAVSVGNVQLAMDLIIISTLNMSKIGYFYTDCLVPMVGNNPYATTEGNSTE  
 LSINAEVYSLPSRKLVALQLRSIFIKYKSKPFCEKLLSWVKSSGCRVIVLSSSHSYQRNDLQLRSTPFR  
 YLLTPSMQKSVQNKIKSLNWEEMKSRCEIPEIDDSEFCIRIPGGGITKTLTYDESCSKEIQMAVLLKFVSE  
 GDNIPDALGLVEYLNEWLQILKPLSDDPTVSASRWKIPSSWRLLFGSGLPPALF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6428\\_f04.zip](https://cdn.origene.com/chromatograms/mk6428_f04.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\_020232

**ORF Size:** 792 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\\_020232.3](#), [NP\\_064617.2](#)

**RefSeq Size:** 1141 bp

**RefSeq ORF:** 795 bp

**Locus ID:** 56984

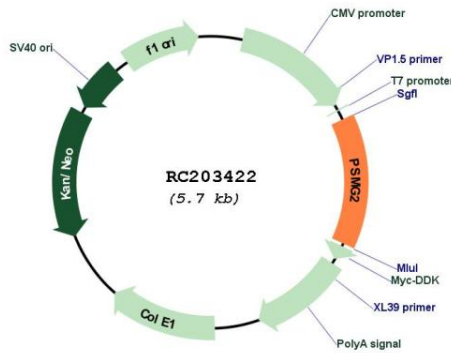
**UniProt ID:** [Q969U7](#)

**Cytogenetics:** 18p11.21

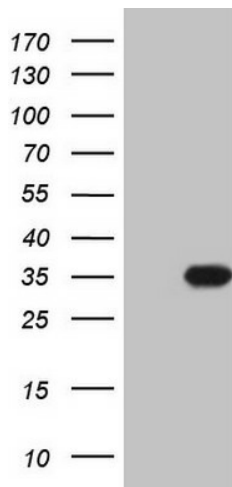
**MW:** 29.4 kDa

**Gene Summary:** Chaperone protein which promotes assembly of the 20S proteasome as part of a heterodimer with PSMG1. 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]

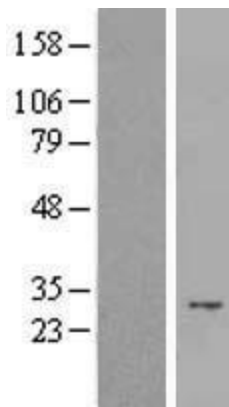
**Product images:**



Circular map for RC203422



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PSMG2 (Cat# RC203422, 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-PSMG2 (Cat# [TA808168])(1:2000). Positive lysates [LY412568] (100ug) and [LC412568] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY412568]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203422 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).