

## Product datasheet for **RG209001**

### PSMB9 (NM\_002800) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PSMB9 (NM_002800) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PSMB9
Synonyms:	beta1i; LMP2; PRAAS3; PSMB6i; RING12
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG209001 representing NM_002800 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCTGCGGGCGGGAGCACCAACCGGGGACTTACCCCGGGCGGGAGAAGTCCACACCGGGACCACCATCA  
TGGCAGTGGAGTTTGACGGGGCGTTGTGATGGTTCTGATTCCCGAGTGTCTGCAGGCGAGGCGGTGGT  
GAACCGAGTGTGGACAAGCTGTCCCGCTGCACGAGCGCATCTACTGTGCACTCTCTGGTTCAGCTGCT  
GATGCCAAGCCGTGGCCGACATGGCCGCCTACCAGCTGGAGCTCCATGGGATAGAAGTGGAGGAACCTC  
CACTTGTGGTGGCTGCTGCAAATGTGGTGAGAAATATCAGCTATAAATATCGAGAGGACTTGTCTGCACA  
TCTCATGGTAGCTGGCTGGGACCAACGTGAAGGAGGTCAGGTATATGGAACCTGGGAGGAATGCTGACT  
CGACAGCCTTTTGGCATTGGTGGCTCCGGCAGCACCTTTATCTATGGTTATGTGGATGCAGCATATAAGC  
CAGGCATGTCTCCCGAGGAGTGCAGGCGCTTACCACAGACGCTATTGCTCTGGCCATGAGCCGGGATGG  
CTCAAGCGGGGTGTCATCTACCTGGTCACTATTACAGCTGCCGGTGTGGACCATCGAGTCATCTTGGGC  
AATGAAGTGC AAAATTCTATGATGAG

**ACGCGT**ACGCGGGCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG209001 representing NM\_002800  
 Red=Cloning site Green=Tags(s)

MLRAGAPTGDLPRAGEVHTGTTIMAVEFDGGVVMGSDSRVSAGEAVVNRVFDKLSPLHERIYCALSGSAA  
 DAQAVADMAAYQLELHGIELEEPPLVLAANVVRNISYKYREDLSAHLMVAGWDQREGGQVYGTLLGMLT  
 RQPPFAIGSGSTFIYGYVDAAYKPGMSPEECRRFTTDAIALAMSRDGSSGGVIYLVITITAAGVDHRVILG  
 NELPKFYDE

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_002800

**ORF Size:** 657 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\\_002800.5](#)

**RefSeq Size:** 1048 bp

**RefSeq ORF:** 660 bp

**Locus ID:** 5698

**UniProt ID:** [P28065](#)

**Cytogenetics:** 6p21.32

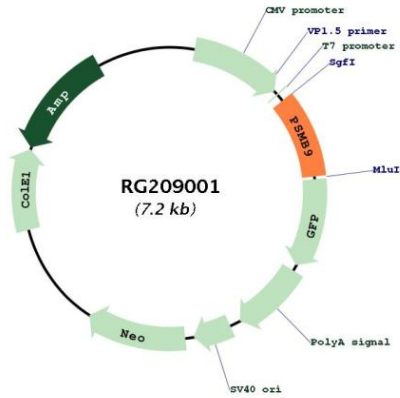
**Domains:** proteasome

**Protein Families:** Druggable Genome, Protease

**Protein Pathways:** Proteasome

**Gene Summary:** The proteasome is a multicatalytic proteinase complex with a highly ordered ring-shaped 20S core structure. The core structure 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. An essential function of a modified proteasome, the immunoproteasome, is the processing of class I MHC peptides. This gene encodes a member of the proteasome B-type family, also known as the T1B family, that is a 20S core beta subunit. This gene is located in the class II region of the MHC (major histocompatibility complex). Expression of this gene is induced by gamma interferon and this gene product replaces catalytic subunit 1 (proteasome beta 6 subunit) in the immunoproteasome. Proteolytic processing is required to generate a mature subunit. [provided by RefSeq, Mar 2010]

Product images:



Circular map for RG209001