

## Product datasheet for **MG202051**

### **Psmb2 (NM\_011970) Mouse Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Psmb2 (NM\_011970) Mouse Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Psmb2  
**Synonyms:** AU045357; AW108089; C7-I; D4Wsu33e; HC7-I  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >MG202051 representing NM\_011970  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGTACCTCATTGGCATCCAGGGCCAGACTATGTCCTCGTCGCTCCGACCGAGTGGCCGCCAGCA  
ATATTGTCCAGATGAAGGACGATCATGACAAGATGTTAAAGATGAGTGAAAAATCTTACTCCTATGTGT  
TGGAGAGGCTGGAGACACTGTACAGTTTGCAGAATATATCCAGAAAAACGTGCACTTTATAAAATGCGG  
AATGGATATGAATTGTCTCCACAGCAGCAGCTAACTTACACGGCGGAACCTGGCTGACTGTCTTCGGA  
GTCGGACCCCATATCATGTGAACCTCCTCTGGCTGGCTATGACGAGCATGAAGGGCCAGCCCTTACTA  
CATGGACTACCTGGCAGCCTTGGCTAAGGCTCCTTTGTCAGCTCATGGCTATGGTGCCTTCTGACTCTC  
AGCATCCTTGACCGATACTACACACCTACCATCTCACGTGAGAGGGCAGTGGAGCTTCTTAGGAAGTGTC  
TGGAGGAGCTCCAGAAGCGCTTCATCTTGAATCTGCCACCTTCAGTGTCCGGGTCATTGACAAAGATGG  
CATCCACAATCTGGAGAACATTGCCTCCCTAAGCGGGACTCC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >MG202051 representing NM\_011970  
Red=Cloning site Green=Tags(s)

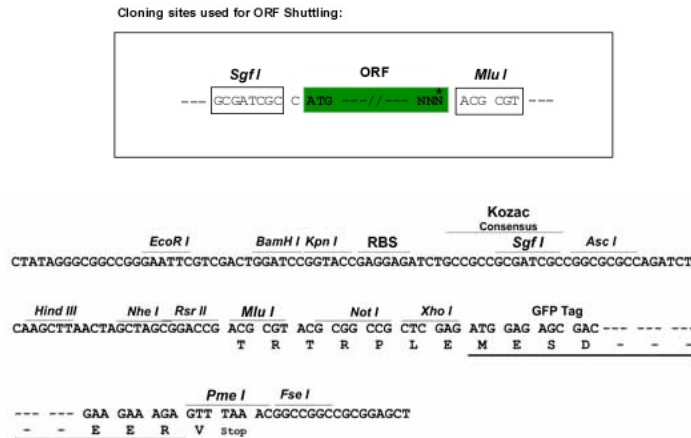
MEYLIGIQPDYVLVASDRVAASNIVQMKDDHDKMFKMSEKILLLCVGEAGDTVQFAEYIQKNVQLYKMR  
NGYELSPATAANFTRRNADCLRSRTPYHVNLLLAGYDEHEGPALYYMDYLAALAKAPFAAHGYGAFLTL  
SILDRIYPTISRERAVELLRKCLEELQKRFILNLPFVSRVIDKDGIIHNLENIAFPKRDS

**TRTRPLE** - GFP Tag - V

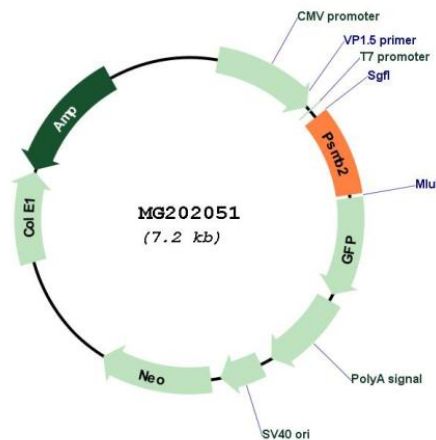
**Restriction Sites:** Sgfl-MluI



**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_011970

**ORF Size:** 603 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\\_011970.4](#), [NP\\_036100.3](#)

**RefSeq Size:** 817 bp

**RefSeq ORF:** 606 bp

**Locus ID:** 26445

**UniProt ID:** [Q9R1P3](#)

**Cytogenetics:** 4 60.9 cM

**Gene Summary:** Component of the 20S core proteasome complex involved in the proteolytic degradation of most intracellular proteins. This complex plays numerous essential roles within the cell by associating with different regulatory particles. Associated with two 19S regulatory particles, forms the 26S proteasome and thus participates in the ATP-dependent degradation of ubiquitinated proteins. The 26S proteasome plays a key role in the maintenance of protein homeostasis by removing misfolded or damaged proteins that could impair cellular functions, and by removing proteins whose functions are no longer required. Associated with the PA200 or PA28, the 20S proteasome mediates ubiquitin-independent protein degradation. This type of proteolysis is required in several pathways including spermatogenesis (20S-PA200 complex) or generation of a subset of MHC class I-presented antigenic peptides (20S-PA28 complex).[UniProtKB/Swiss-Prot Function]