

## Product datasheet for **RG227745**

### PSMB5 (NM\_001144932) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** PSMB5 (NM\_001144932) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** PSMB5  
**Synonyms:** LMPX; MB1; X  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG227745 representing NM\_001144932  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCGCTTGCCAGCGTGTGGAGAGACCCTACCGGTGAACCAGCGCGGTTTTTCGGACTTGGGGTCT  
 GTGCAGATCTGCTGGATCTAGGTCCAGGGAGTCTCAGTGATGGTCTGAGCCTGGCCGCGCCAGGCTGGGG  
 TGTCCCAGAAGAGCCAGGAATCGAAATGCTTCATGGAACAACCACCTGGCCTTCAAGTCCGCCATGGA  
 GTCATAGTTGAGCTGACTCCAGGGCTACAGCGGGTGTACATTGCCTCCAGACGGTGAAGAAGTGA  
 TAGAGATCAACCCATACCTGCTAGGCACCATGGCTGGGGCGCAGCGGATTGCAGCTTCTGGGAACGGCT  
 GTTGGCTCGGCAATGTCGAATCTATGAGCTTCGAAATAAGGAACGCATCTCTGTAGCAGCTGCCTCCAAA  
 CTGCTTGCCAACATGGTGTATCAGTACAAAGGCATGGGGCTGTCCATGGGCACCATGATCTGTGGCTGGG  
 ATAAGAGAGGCCCTGTGTCTGAAGTTCTGTGCTTAAAACCTAAGTCATTTGGAATGTACTTGTGTTGTGG  
 GTGTGCTGAGAGGATCGGCAACATGGCAAGGCCTCTACTACGTGGACAG

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:** >RG227745 representing NM\_001144932  
 Red=Cloning site Green=Tags(s)

MALASVLERPLPVNQRGFFGLGGRADLLDLGPGSLSDGLSLAAPGWGVPEEPGIEMLHGTTTLAFKFRHG  
 VIVAADSRATAGAYIASQTVKKVIEINPYLLGTMAGGAADCSFWERLLARQCRIYELRNKERISVAASK  
 LLANMVYQYKGMGLSMGTMICGWDKRGPVSEVLCLKPKSFGMYLFCGCAERIGNMARPLLRGQ

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** Sgfl-MluI



Cloning Scheme:



Plasmid Map:



ACCN: NM\_001144932

ORF Size: 609 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\\_001144932.2](#)

**RefSeq Size:** 1379 bp

**RefSeq ORF:** 612 bp

**Locus ID:** 5693

**UniProt ID:** [P28074](#)

**Cytogenetics:** 14q11.2

**Protein Families:** 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 in the proteasome. This catalytic subunit is not present in the immunoproteasome and is replaced by catalytic subunit 3i (proteasome beta 8 subunit). Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2009]