

## Product datasheet for **SC320115**

### PSMB5 (NM\_002797) Human Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** PSMB5 (NM\_002797) Human Untagged Clone  
**Tag:** Tag Free  
**Symbol:** PSMB5  
**Synonyms:** LMPX; MB1; X  
**Mammalian Cell Selection:** None  
**Vector:** pCMV6-XL5  
**E. coli Selection:** Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for NM\_002797.2  
 CTTTCTGCCACACTAGACATGGCGCTTGCCAGCGTGTGGAGAGACCGCTACCGGTGAA  
 CCAGCGCGGGTTTTTCGGACTTGGGGTCTGTCAGATCTGCTGGATCTAGGTCCAGGGAG  
 TCTCAGTGATGGTCTGAGCCTGGCCGCGCCAGGCTGGGGTGTCCAGAAGAGCCAGGAAT  
 CGAAATGCTTCATGGAACAACACCCTGGCCTTCAAGTCCGCCATGGAGTCATAGTTGC  
 AGCTGACTCCAGGGCTACAGCGGTGCTTACATTGCCTCCAGACGGTGAAGAAGGTGAT  
 AGAGATCAACCCATACCTGCTTGGCACCATGGCTGGGGGCGCAGCGGATTGCAGCTTCTG  
 GGAACGGCTGTTGGCTCGGCAATGTCGAATCTATGAGCTTCGAAATAAGGAACGCATCTC  
 TGTAGCAGCTGCCTCAAACCTGCTTGCACCATGGTGTATCAGTACAAAGGCATGGGGCT  
 GTCCATGGGCACCATGATCTGTGGCTGGGATAAGAGAGGCCCTGGCCTCTACTACGTGGA  
 CAGTGAAGGGAACCGGATTTTCAGGGCCACCTTCTGTAGGTTCTGGCTCTGTGTATGC  
 ATATGGGGTCATGGATCGGGCTATTCTATGACCTGGAAGTGGAGCAGGCCTATGATCT  
 GGCCCGTCGAGCCATCTACCAAGCCACCTACAGAGATGCCTACTCAGGAGGTGCAGTCAA  
 CCTTACCACGTGCGGGAGGATGGCTGGATCCGAGTCTCCAGTGACAATGTGGCTGATCT  
 ACATGAGAAGTATAGTGGCTCTACCCCTGAAAGAGGGTGGATGCAGCTGCTTGTGTTTC  
 TTGGGGTGACTGTCATTGGTAATACGGACACAGTGACCCATCCTCCATCCTATTTATAGT  
 GGAAGGCCTTCAATTGTATCAGTACTTTTTTTAAGCTCTGGCATTGACCTCTATGT  
 GTTACCAGTCATTAATGAGCTGCTGCAGAGGTGACTATTTGTTTACTTTCTTGGATGTT  
 AACATTACTACTCACTACCCAAAAAAAAAAAAAAAAAAAA

**Restriction Sites:** Please inquire  
**ACCN:** NM\_002797



[View online »](#)

<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u><a href="#">NM_002797.2</a></u> , <u><a href="#">NP_002788.1</a></u>
<b>RefSeq Size:</b>	1050 bp
<b>RefSeq ORF:</b>	792 bp
<b>Locus ID:</b>	5693
<b>UniProt ID:</b>	<u><a href="#">P28074</a></u>
<b>Cytogenetics:</b>	14q11.2
<b>Domains:</b>	proteasome
<b>Protein Families:</b>	Protease
<b>Protein Pathways:</b>	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]

Transcript Variant: This variant (1) represents the longer transcript and encodes the longest protein (isoform 1). Sequence Note: The RefSeq transcript and protein were derived from transcript and genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.