

## Product datasheet for **SC320589**

### Proteasome beta 1 (PSMB1) (NM\_002793) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Proteasome beta 1 (PSMB1) (NM_002793) Human Untagged Clone
Tag:	Tag Free
Symbol:	Proteasome beta 1
Synonyms:	HC5; PMSB1; PSC5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for NM\_002793.2  
GAGACAGCAAGTGTCCGATCCGCAGGCCGCGATGTTGCTCTACAGCCATGT  
ATTCGGCTGCTGGCAGAGACTTGGGGATGGAACCGCACAGAGCCGCGGCCCTTTGCAGC  
TGGGATTTTCGCCCTACGTTTTCAACGGAGGTAATACTGGCAATTGCTGGAGAAGATT  
TTGCAATTGTTGCTTCTGATACTCGATTGAGTGAAGGGTTTTCAATTCATACGCGGGATA  
GCCCAAATGTTACAAATTAACAGACAAAAAGTCATTGGATGCAGCGGTTTTTCATGGAG  
ACTGTCTTACGCTGACAAAGATTATTGAAGCAAGACTAAAGATGTATAAGCATTCCAATA  
ATAAGGCCATGACTACGGGGCAATTGCTGCAATGCTGTCTACAATCCTGTATTCAAGGC  
GCTTCTTCCATACTATGTTTACAACATCATCGGTGGACTTGATGAAGAAGGAAAGGGGG  
CTGTATACAGCTTTGATCCAGTAGGGTCTTACCAGAGAGACTCCTCAAGGCTGGAGGCT  
CAGCAAGTGCCATGCTACAGCCCTGCTTGACAACCAGGTTGGTTTTAAGAACATGCAGA  
ATGTGGAGCATGTCCGCTGTCCCTTGACAGAGCCATGCGGCTGGTAAAAGATGTCTTCA  
TTTCTGCGGCTGAGAGAGATGTGTACTGGGACGCACTCCGGATCTGCATAGTGACCA  
AAGAGGGCATCAGGGAGGAACTGTTTCCTTAAGGAAGGACTGATCTGTGTGCTCTTATC  
ACCAATCAGTTCAGACCTGGTTGATTTGTACTTTGGAAGTGTACCTGGATGGTTTTGT  
TTATTAAGAGAAACCTGAAGTAAAAAAAAAAAAAAAAAAAAA

Restriction Sites:	Please inquire
ACCN:	NM_002793
OTI Disclaimer:	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).



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<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>	<a href="#">NM_002793.2</a> , <a href="#">NP_002784.1</a>
<b>RefSeq Size:</b>	872 bp
<b>RefSeq ORF:</b>	726 bp
<b>Locus ID:</b>	5689
<b>UniProt ID:</b>	<a href="#">P20618</a>
<b>Cytogenetics:</b>	6q27
<b>Domains:</b>	proteasome
<b>Protein Families:</b>	Protease
<b>Protein Pathways:</b>	Proteasome
<b>Gene Summary:</b>	<p>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 tightly linked to the TBP (TATA-binding protein) gene in human and in mouse, and is transcribed in the opposite orientation in both species. [provided by RefSeq, Jul 2008]</p>