

## Product datasheet for **SC319059**

### Proteasome 20S beta 7 (PSMB7) (NM\_002799) Human Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Proteasome 20S beta 7 (PSMB7) (NM\_002799) Human Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Proteasome 20S beta 7  
**Synonyms:** Z  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC (PS100020)  
**E. coli Selection:** Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for NM\_002799.2  
GAAGATGGCGGCTGTGTCGGTGTATGCTCCACCAGTTGGAGGCTTCTCTTTTGATAACTG  
CCGCAGGAATGCCGTCTTGGAGCCGATTTTGCAAAGAGGGGATACAAGCTTCCAAGGC  
CCGAAAACTGGCACGACCATCGCTGGGGTGGTCTATAAGGATGGCATAGTTCTTGGAGC  
AGATACAAGGCAACTGAAGGGATGGTTGTTGCTGACAAGAACTGTTCAAAAATACACTT  
CATATCTCCTAATATTTATTGTTGTTGGTCTGGGACAGCTGCAGACACAGACATGACAAC  
CCAGCTCATTTCTCCAACCTGGAGCTCCACTCCCTCTCCACTGGCCGTCTTCCAGAGT  
TGTGACAGCCAATCGGATGCTGAAGCAGATGCTTTTCAGGTATCAAGGTTACATTGGTGC  
AGCCCTAGTTTTAGGGGAGTAGATGTTACTGGACCTCACCTCTACAGCATCTATCTCA  
TGGATCAACTGATAAGTTGCCTTATGTCACCATGGGTTCTGGCTCCTTGGCAGCAATGGC  
TGTATTTGAAGATAAGTTTAGGCCAGACATGGAGGAGGAGGAAGCCAAGAATCTGGTGAG  
CGAAGCCATCGCAGCTGGCATCTTCAACGACCTGGGCTCCGGAAGCAACATTGACCTCTG  
CGTCATCAGCAAGAACAAGCTGGATTTTCTCCGCCATACACAGTGCCCAACAAGAAGGG  
GACCAGGCTTGGCCGGTACAGGTGTGAGAAAGGGACTACTGCAGTCTCACTGAGAAAAT  
CACTCCTCTGGAGATTGAGGTGCTGGAAGAAACAGTCCAAACAATGGACACTTCTCGAAT  
GGCATCAGTGGTGGCTGGCCGCGGTTCTGGAAGTGGTGGTGGTGGTGGTGGTGGTGGTGGT  
CACTCATGTGGCTAGTGTGTTGCCGAATGAACTCAACTCAATAAAAAACAAAAACCAAT  
TGGGCAGCTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**Restriction Sites:** Please inquire

**ACCN:** NM\_002799

**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_002799.2</a> , <a href="#">NP_002790.1</a>
<b>RefSeq Size:</b>	1012 bp
<b>RefSeq ORF:</b>	834 bp
<b>Locus ID:</b>	5695
<b>UniProt ID:</b>	<a href="#">Q99436</a>
<b>Cytogenetics:</b>	9q33.3
<b>Domains:</b>	proteasome
<b>Protein Families:</b>	Druggable Genome, Protease
<b>Protein Pathways:</b>	Proteasome
<b>Gene Summary:</b>	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. The encoded protein is a member of the proteasome B-type family, also known as the T1B family, and is a 20S core beta subunit in the proteasome. Expression of this catalytic subunit is downregulated by gamma interferon, and proteolytic processing is required to generate a mature subunit. A pseudogene of this gene is located on the long arm of chromosome 14. [provided by RefSeq, Jul 2012]