

## Product datasheet for **SC118413**

### Proteasome 20S alpha 5 (PSMA5) (NM\_002790) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Proteasome 20S alpha 5 (PSMA5) (NM_002790) Human Untagged Clone
Tag:	Tag Free
Symbol:	Proteasome 20S alpha 5
Synonyms:	PSC5; ZETA
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC118413 sequence for NM_002790 edited (data generated by NextGen Sequencing)

```
ATGTTTCTTACCCGGTCTGAGTACGACAGGGCGTGAATACTTTTTCTCCCGAAGGAAGA
TTATTTCAAGTGAATATGCCATTGAGGCTATCAAGCTTGGTTCTACAGCCATTGGGATC
CAGACATCAGAGGGTGTGTGCCTAGCTGTGGAGAAGAGAATTACTTCCCACTGATGGAG
CCCAGCAGCATTGAGAAAATTGTAGAGATTGATGCTCACATAGGTTGTCCATGAGTGGG
CTAATTGCTGATGCTAAGACTTTAATTGATAAAGCCAGAGTGGAGACACAGAACCACTGG
TTCACCTACAATGAGACAATGACAGTGGAGAGTGTGACCCAAGCTGTGTCCAATCTGGCT
TTGCAGTTTGGAGAAGAAGATGCAGATCCAGGTGCCATGTCTCGTCCCTTTGGAGTAGCA
TTATTATTTGGAGGAGTTGATGAGAAAGGACCCAGCTGTTTCATATGGACCCATCTGGG
ACTTTTGTACAGTGTGATGCTCGAGCAATTGGCTCTGCTTCAGAGGGTGCCAGAGCTCC
TTGCAAGAAGTTTACCACAAGTCTATGACTTTGAAAGAAGCCATCAAGTCTTCACTCATC
ATCCTCAAACAAGTAATGGAGGAGAAGCTGAATGCAACAACATTGAGCTAGCCACAGTG
CAGCCTGGCCAGAATTTCCACATGTTTCAAAAGGAAGAATTGAAGAGGTTATCAAGGAC
ATTTAA
```

Clone variation with respect to NM\_002790.3



[View online »](#)

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_002790 unedited  
 GGTACTATTTGTATACGACTCCTATAGGGCGGCCGCGATTTCGGCACGAGGGTTGGGTGCC  
 GGTGGAGTCGTGTTGGTCCTCAGAATCCCCGCGTAGCCGCTGCCTCCTCCTACCCTCGCC  
 ATGTTTCTTACCCGGTCTGAGTACGACAGGGCGTGAATACTTTTTCTCCGAAGGAAGA  
 TTATTTCAAGTGAATATGCCATTGAGGCTATCAAGCTTGGTTCTACAGCCATTGGGATC  
 CAGACATCAGAGGGTGTGTGCCTAGCTGTGGAGAAGAGAATTACTTCCCCTGATGGAG  
 CCCAGCAGCATTGAGAAAATTGTAGAGATTGATGCTCACATAGGTTGTGCCATGAGTGGG  
 CTAAATTGCTGATGCTAAGACTTTAATTGATAAAGCCAGAGTGGAGACACAGAACCCTGG  
 TTCACCTACAATGAGACAATGACAGTGGAGAGTGTGACCCAAGCTGTGTCCAATCTGGCT  
 TTGCAGTTTGGAGAAGAAGATGCAGATCCAGGTGCCATGTCTCGTCCCTTTGGAGTAGCA  
 TTATTATTTGGAGGAGTTGATGAGAAAGGACCCAGCTGTTTCATATGGACCCATCTGGG  
 ACCTTTGTACAGTGTGATGCTCGAGCAATTGGCTCTGCTTCAGAGGGTCCCAGAGCTNC  
 TTGNCAGAGTTTACCCACAGTCTATGACTTTGAAAGAAGCCATCAAGTCTTCACTCATCA  
 TCCTCAAACAAGTAATGGGAGAGAAAGCTGATGCAACANACATTGAGCTAGCCACAGTGC  
 AGCCTGGCCAGAATTTCCACATGTTCAAAAGGAAGAACTGAAGAGTTATCCAAGACAT  
 TTAAGGAATCCTGATCCTCAAACTCTCTGGGACAATTNCAAGTNTAATATGGCCCTAAA  
 TTTTATTTTCAGCTCCTGT

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_002790 unedited  
 CGGCCACGGCCAATCCTNAGAAANTNCGAAGNTCTTTCTTCTTCTTCTTCTTCTTAA  
 TCTTCTAAAAAATTTCTNCTTTATCTTCCAGAAAACATGGCCTTTCATGTCACAGC  
 ACATCACTTTAAAAATGCACATACAATGGAGATTTTCCAAGAACAGGAGCTGGAAATA  
 AAATTTAAGGACATTATTAGAAGTAAAATGTCCAGAGAAGTTCTGAGGATCAGGATTC  
 CTTAAATGTCCTTGATAACCTCTCAAGTTCTTCTTTGTGAACATGTGGAAATCTGGC  
 CAGGCTGCACTGTGGCTAGCTCAATGTTTGTGATTTCAGCTTCTCCTCCATTACTTGT  
 TGAGGATGATGAGTGAAGACTTGTGGCTTCTTCAAAGTCATAGACTTGTGGTAAACTT  
 CTTGCAAGGAGCTCTGGGCACCCCTCTGAAGCAGAGCCAATTGCTCGAGCATCACACTGTA  
 CAAAGGTCCCAGATGGGTCCATATGAAACAGCTGGGGTCTTTCTCATCAACTCCTCCAA  
 ATAATAATGCTACTCAAAGGGACGAGACATGGCACCTGGATCTGCATCTTCTTCCAA  
 ACTGCAAAGCCAGATTGGACACAGCTTGGGTCACACTCTCCACTGTCATTGTCTCATTGC  
 AAGTGAACCCATGGTTCTGTGCCTCCACTCTGGCTTCACAATTAAGTCTTAACCTTAGC  
 AATTACCCCACTATGGCACAACTATGGGACCAATCCCTTACATTTTCTCAATGGCCG  
 CTGGGCCCTCCATCAAGGCGGAAATAATCTTCTTCTCCACAGCTTGGCCACACCCCTGTA  
 AGCCCGGACCCAAAGGCTGTAAAAACACCTGGTAACCCCAAGGGCTATTCCACTGGAAT  
 AATCTTCTTGGGAGAAAAATCCACCCCTGTCTCCCAACGGGTAAAAACATGGCAG  
 GCCCGGAGGAGGCATGGTCTCCCGATTTAGACCAATCTATCCCGCACCCCT

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_002790

**Insert Size:**

880 bp

**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).

**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).

<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_002790.2</a> , <a href="#">NP_002781.2</a>
<b>RefSeq Size:</b>	1023 bp
<b>RefSeq ORF:</b>	726 bp
<b>Locus ID:</b>	5686
<b>UniProt ID:</b>	<a href="#">P28066</a>
<b>Cytogenetics:</b>	1p13.3
<b>Domains:</b>	proteasome
<b>Protein Families:</b>	Druggable Genome, 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 peptidase T1A family, that is a 20S core alpha subunit. Multiple alternatively spliced transcript variants encoding two distinct isoforms have been found for this gene. [provided by RefSeq, Dec 2010]</p> <p>Transcript Variant: This variant (1) is the predominant transcript and encodes the longer isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.</p>