

## Product datasheet for **SC110986**

### Proteasome subunit beta type 2 (PSMB2) (NM\_002794) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Proteasome subunit beta type 2 (PSMB2) (NM_002794) Human Untagged Clone
Tag:	Tag Free
Symbol:	Proteasome subunit beta type 2
Synonyms:	HC7-I
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC110986 sequence for NM_002794 edited (data generated by NextGen Sequencing) ATGGAGTACCTCATCGGTATCCAAGGCCCGACTATGTTCTTGTGCGCTCCGACCGGGTG GCCGCCAGCAATATTGTCCAGATGAAGGACGATCATGACAAGATGTTTAAGATGAGTGAA AAGATATTACTCCTGTGTGTTGGAGAGGCTGGAGACACTGTACAGTTTGCAGAATATATT CAGAAAAACGTGCAACTTTATAAGATGCGAAATGGATATGAATTGTCTCCACGGCAGCA GCTAACTTACACGCCGAAACCTGGCTGACTGTCTTCGGAGTCGGACCCCATATCATGTG AACCTCCTCCTGGCTGGCTATGATGAGCATGAAGGCCAGCGCTGTATTACATGGACTAC CTGGCAGCCTTGGCCAAGGCCCTTTTGCAGCCCACGGCTATGGTGCCTTCTGACTCTC AGTATCCTCGACCGATACTACACACCGACTATCTCACGTGAGAGGGCAGTGGAACTCCTT AGGAAATGTCTGGAGGAGCTCCAGAAACGCTTCATCCTGAATCTGCCAACCTTCAGTGTT CGAATCATTGACAAAAATGGCATCCATGACCTGGATAACATTTCTTCCCAAACAGGGC TCCTAA  Clone variation with respect to NM_002794.4



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**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_002794 unedited  
 TTGTAATACGACTCACTATAGGGCGGCCCGGATTTCGGCACGAGGCGCCAATCTTCGCTC  
 TGAGGTGCTGTCTCACCAGGTGAGACCTGGAAGCGGGGAGTCTCGTGCTGTGTCGGACCT  
 GCAGCCCTGGCCTTCCGCCACCATGGAGTACCTCATCGGTATCCAAGGCCCCGACTATG  
 TTCTTGTGCTCCGACCGGGTGGCCGCCAGCAATATTGTCCAGATGAAGGACGATCATG  
 ACAAGATGTTTAAAGATGAGTGAAGATATTACTCCTGTGTGTTGGAGAGGCTGGAGACA  
 CTGTACAGTTTGCAGAATATATTTCAGAAAAACGTGCAACTTTATAAGATGCGAAATGGAT  
 ATGAATTGTCTCCACGGCAGCAGCTAACTTACACGCCGAAACCTGGCTGACTGTCTTC  
 GGAGTCGGACCCCATATCATGTGAACCTCCTCCTGGCTGGCTATGATGAGCATGAAGGGC  
 CAGCGCTGTATTACATGGACTACCTGGCAGCCTTGGCCAAGGCCCTTTTGCAGCCACG  
 GCTATGGTGCCTTCTGACTCTCAGTATCCTCGACCGATACTACACACCGACTATCTCAC  
 GTGAGAGGGCAGTGAACCTCTAGGAAATGTCTGGAGGAGCTCCAGAAACGCTTCATCC  
 TGAATCTGCCAACCTTCAGTGTTCGAATCATTGACAAAAATGGCATCCATGACCTGGATA  
 ACATTTCTTCCCAACAGGGCTCCTACATCATGTCTCCCTTCCACTTGCCAGAGAAT  
 NTTTTTGTGGCTCCTTTATNTTTTCTACTTTTTTCANGCGCACTTTGATAAATGG  
 GTATTAGAAATAAGGTGACTATGGATATAANTGAAAAAAAAAAAAAAAAACTCACTTAGAT  
 TGGCGCCGCTCATAGCTGTTCTGAAAGATTCGGGTGGCATCCCTGTGACCCCTC

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_002794 unedited  
 CCCCCCTCCCATCCATCTTACCCAATCTATCCCGTGTTTTAGTCTAGCACCCGCGGA  
 CCGCTTCTAGNATCGGTTTTTTTTTTTTTTTTTTTCAATTATATCCATAGTCACCTTTA  
 TTCTGAATTAACCATTTATCAAGAGTGCCTGAAAAGGTAGAAAAAATAAAGGAGCCC  
 ATCAAAAAAAGTTCCCTGGCAAGTGGGAGGGAGGACATGATGTTAGGAGCCCTGTTTGG  
 GGAAGGAAATGTTATCCAGGTATGGATGCCATTTTTGTCAATGATTCGAACACTGAAGG  
 TTGGCACATTCAGGATGAAGCGTTTTTGGAGCTCCTCCAGACATTTCTAAGGAGTTCCA  
 CTGCCCTCTCACGTGAGATAGTCGGTGTGTAGTATCGGTCGAGGATACTGAGAGTCAGGA  
 AGGCACCATAGCCGTGGGCTGCAAAAGGGGCTTGGCCAAGGCTGCCAGGTAGTCCATGT  
 AATACAGCGCTGGCCCTTCATGCTCATATAGCCAGCCAGGAGGAGGCTCACATGATG  
 GGGCCCGATTCCGAAACAGTCAGCCAGGTTTCGGCGTGTGAAGTCAGCTGCTGCCGTGG  
 AGACAATTCATATCCCATTCCGCATCTTATAAAGTTGCACGCTTTTCTGAATATATTCT  
 GCCAATGCACAGTGTCTACAGCTTTTCAACAACAGGAGTAATTTTTTTTCCCTTAT  
 NCTTAAACATTCTTGCCATGCACCGNTCCTTTATCTGGAACAATAATGGTTGGCGGCACA  
 CCCCCTTCGGGAGGCGACCAAGACCATACTTCGGCGCCTTTGGATCCCGTAGAGTCACT  
 CCATGGGGGCCGAAAGCCCTGGCCCGTAAGTTCTAACACACCACAAAACCTTCCCGT  
 CTCCAAGTTTACCGGTGAGAAACCCCTTAAAACCGAAATATTGCCCTCTCTCCAAA

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_002794

**Insert Size:**

920 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).

**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\\_002794.3](#), [NP\\_002785.1](#)

**RefSeq Size:** 850 bp

**RefSeq ORF:** 606 bp

**Locus ID:** 5690

**UniProt ID:** [P49721](#)

**Cytogenetics:** 1p34.3

**Domains:** proteasome

**Protein Families:** Druggable Genome, 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. Multiple alternatively spliced transcript variants encoding distinct isoforms have been found for this gene. [provided by RefSeq, Dec 2010]  
Transcript Variant: This variant (1) encodes the longest 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.