

## Product datasheet for **SC118416**

### PSMB3 (NM\_002795) Human Untagged Clone

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids   |
| Product Name:             | PSMB3 (NM_002795) Human Untagged Clone  |
| Tag:                      | Tag Free  |
| Symbol:                   | PSMB3   |
| Synonyms:                 | HC10-II   |
| 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 SC118416 sequence for NM_002795 edited (data generated by NextGen Sequencing)<br>ATGTCTATTATGTCCTATAACGGAGGGGCCGTCATGGCCATGAAGGGAAGAAGTGTGTG<br>GCCATCGCTGCAGACAGGCGCTTCGGGATCCAGGCCAGTTGGTGACCACGGACTTCCAG<br>AAGATCTTTCCCATGGGTGACCGCTGTACATCGGTCTGGCCGGCTCGCCACTGACGTC<br>CAGACAGTTGCCAGCGCCTCAAGTTCCGGCTGAACCTGTATGAGTTGAAGGAAGGTCGG<br>CAGATCAAACCTTATACCCTCATGAGCATGGTGGCCAACCTCTTGTATGAGAAACGGTTT<br>GGCCCTTACTACACTGAGCCAGTCATTGCCGGTTGGACCCGAAGACCTTTAAGCCCTTC<br>ATTTGCTCTCTAGACCTCATCGGCTGCCCCATGGTGACTGATGACTTTGTGGTCAGTGGC<br>ACCTGCGCCGAACAAATGTACGGAATGTGTGAGTCCCTCTGGGAGCCCAACATGGATCCG<br>GATCACCTGTTTGAACCATCTCCAAGCCATGCTGAATGCTGTGGACCGGGATGCAGTG<br>TCAGGCATGGGAGTCATTGTCCACATCATCGAGAAGGACAAAATCACCACAGGACTG<br>AAGGCCCGAATGGACTAA<br><br>Clone variation with respect to NM_002795.2<br>100 a=>t |



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|                                     |   |
|-------------------------------------|---|
| <b>5' Read Nucleotide Sequence:</b> | <p>&gt;OriGene 5' read for NM_002795 unedited</p> <pre>GGTCAGGAATAGTATCCGATTATATAGGCGGCCGCGCAATTCGCACGAGGGCTAGACCC GGTTTACTGGAATTGCTCTGGCGATCGAGGGTCTAGTACACCGCAATCATGTCTATTA TGTCTATAACGGAGGGGCCGTCATGGCCATGAAGGGGAAGAACTGTGTGGCCATCGCTG CAGACAGGCGCTTCGGGATCCAGGCCCTGTTGGTGACCACGGACTTCCAGAAGATCTTTC CCATGGGTGACCGGCTGTACATCGGTCTGGCCGGGCTCGCCACTGACGTCCAGACAGTTG CCCAGCGCCTCAAGTTCGGCTGAACCTGTATGAGTTGAAGGAAGTCCGCAGATCAAAC CTTATACCTCATGAGCATGGTGGCCAACCTCTTGATGAGAAACGGTTTGGCCCTTACT ACACTGAGCCAGTCATTGCCGGTTGGACCCGAAGACCTTTAAGCCCTTCATTTGCTCTC TAGACCTCATCGGCTGCCCATGGTGACTGATGACTTTGTGGTCACTGGCACCTGCGCCG AACAAATGTACGGAATGTGTGAGTCCCTCTGGGAGCCCAACATGGATCCGGATCACCTGT TTGAAACCATCTCCAAGCCATGCTGAATGCTGTGGACCGGGATGCAGTGTGAGGCATGG GAGTCATTGTCCACATCATCGAGAAAGACAAAATCACCACCAGGACACTGAAGGCCCGAA TGGACTAACCCCTGTTCCAGAGCCCACTTTTTTTCTTTTCTTGACATAAAAATAGCCTT GTTTTTCAAAAAACAAAAAAACTCGACTTTAGATTGCGGCCGCGCCATACCTGTTT CCTGAACAGAACCCCGTGGGATCCCTGTGACCCCTCCATGGCCTTTCCTGCCCTGGA AATTGCC</pre>  |
| <b>3' Read Nucleotide Sequence:</b> | <p>&gt;OriGene 3' read for NM_002795 unedited</p> <pre>TAGAGTCGAGTTTTTTTTTTTTTTTTTAAAGACAGGCTATTTTATTTCAAAAAAGAA AAAAAAGTGGGCCTCTGGGAACAGGTTAGTCCATTCGGGCCTTCAGTGTCTGGTGGTG ATTTTGCCTTCTCGATGATGTGGACAATGACTCCCATGCCTGACACTGCATCCCGTCC ACAGCATTGAGCATGGCTTGGGAGATGGTTTCAAACAGGTGATCCGGATCCATGTTGGGC TCCAGAGGGACTCACACATTCCGTACATTTGTTGCGGCGAGGTGCCACTGACCACAAAG TCATCAGTCACCATGGGGCAGCCGATGAGGTCTAGAGAGCAAATGAAGGGCTTAAAGGTC TTCGGGTCCAACCCGGAATGACTGGCTCAGTGTAGTAAGGGCCAAACCGTTTCTCATAC AAGAGGTTGGCCACCATGCTCATGAGGGTATAAGGTTTGTCTGCCGACCTTCTTCAAC TCATACAGGTTGACCCGGAATGANGCGCNTGGGCACTGTCTGGACGTGAGTGGCGAAG CCCGCCAGACCGATGTACAGCCGGTCAACCCATGGAAAGATCTTCTGGAGTCCGTGGTCC CCAACGGGCTGAATCCCGAACCCCTGTCTGCAACAAGGCCACCAGTTCTTCCCTTCA TGCCCTGACGGCCCTCCGTTATGGACATAAAAAACTGAATGGGGGGTCCGACCCCCCAA TCCCCAAAAAATTCCCGTAAACGGGTTTACCCCTTGGCCAATATCGGGCCGCCCTAAGG GGGCCCTATCCAAATTTACGCGGTCAAAAACACCTTGTTTTATTACCCCCCCCCGAC CCCCCCCCCTTTTTGTACCCGGGGGGGTTTTACCCATTTTTAAAAACCCCTTTTTT TGGCCAAACCCCTT</pre> |
| <b>Restriction Sites:</b>           | NotI-NotI   |
| <b>ACCN:</b>                        | NM_002795   |
| <b>Insert Size:</b>                 | 780 bp  |
| <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>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).  |

**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\\_002795.2](#), [NP\\_002786.2](#)

**RefSeq Size:** 784 bp

**RefSeq ORF:** 618 bp

**Locus ID:** 5691

**UniProt ID:** [P49720](#)

**Cytogenetics:** 17q12

**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. The 26 S proteasome may be involved in trinucleotide repeat expansion, a phenomenon which is associated with many hereditary neurological diseases. Pseudogenes have been identified on chromosomes 2 and 12. Alternative splicing results in multiple transcript variants [provided by RefSeq, Sep 2013]  
Transcript Variant: This variant (1) represents the longest transcript and encodes the functional protein.