

Product datasheet for **SC118415**

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:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC118415 sequence for NM_002793 edited (data generated by NextGen Sequencing)

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ATGTTGTCCTCTACAGCCATGTATTCGGCTCCTGGCAGAGACTTGGGGATGGAACCGCAC
AGAGCCGCGGGCCCTTTGCAGCTGCGATTTTCGCCCTACGTTTTCAACGGAGGTACTATA
CTGGCAATTGCTGGAGAAGATTTTGCAATTGTTGCTTCTGATACTCGATTGAGTGAAGGG
TTTTCAATTCATACGCGGGATAGCCCCAAATGTTACAAATTAACAGACAAAACAGTCATT
GGATGCAGCGTTTTTCATGGAGACTGTCTTACGCTGACAAAGATTATTGAAGCAAGACTA
AAGATGTATAAGCATTCCAATAATAAGGCCATGACTACGGGGCAATTGCTGCAATGCTG
TCTACAATCCTGTATTCAAGGCGCTTCTTCCATACTATGTTTACAACATCATCGGTGGA
CTTGATGAAGAAGGAAAGGGGCTGTATACAGCTTTGATCCAGTAGGGTCTTACCAGAGA
GACTCCTTCAAGGCTGGAGGCTCAGCAAGTGCCATGCTACAGCCCCTGCTTGACAACCAG
GTTGGTTTTAAGAACATGCAGAATGTGGAGCATGTTCCGCTGTCCTTGGACAGAGCCATG
CGGCTGGTGAAAGATGTCTTCTTCTGCGGCTGAGAGAGATGTGTACACTGGGGACGCA
CTCCGGATCTGCATAGTGACCAAAGAGGGCATCAGGGAGGAAACTGTTTCCTTAAGGAAG
GACTGA
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Clone variation with respect to NM_002793.3



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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_002793 unedited
 AATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGCAAGTGTCGGATCCGCAGG
 CGCAGCCGTGCGATGTTGTCCTCTACAGCCATGTATTCGGCTCCTGGCAGAGACTTGGGG
 ATGGAACCGCACAGAGCCGCGGGCCCTTTGCAGCTGCGATTTTCGCCCTACGTTTTCAAC
 GGAGGTAATACTGGCAATTGCTGGAGAAGATTTGCAATTGTTGCTTCTGATACTCGA
 TTGAGTGAAGGGTTTTCAATTCATACGCGGGATAGCCCCAAATGTTACAAATTAACAGAC
 AAAACAGTCATTGGATGCAGCGGTTTTTCATGGAGACTGTCTTACGCTGACAAAGATTATT
 GAAGCAAGACTAAAGATGTATAAGCATTCCAATAATAAGGCCATGACTACGGGGCAATT
 GCTGCAATGCTGTCTACAATCCTGTATTCAAGGCGCTTCTTCCATACTATGTTTACAAC
 ATCATCGGTGGACTTGATGAAGAAGGAAAGGGGCTGTATACAGCTTTGATCCAGTAGGG
 TCTTACCAGAGAGACTCCTTCAAGGCTGGAGGCTCAGCAAGTGCCATGCTACAGCCCTG
 CTTGACAACCAGTTGGTTNTAAGAACATGCAGAATGTGGAGCATGTTCCGCTGTCCTTG
 GACAGAGCCATGCGGCTGGTAAAGATGTCTTCAATTTCTCGGCTGAGAGAGATGTGTAC
 ACTGGGGACGCACTCCCNATCTGCATAGTGACCAAGAGGGCATCAGGNAGGGAAACTGT
 TCCTTAGNANGACTGATCTGTGTGCTCTTATACCAATCAGTNAGACCTGGNTGATTTGT
 ACTTTGAACTGTACCTGGATGGTTTTGTTATTAAGAGAAACCTGAGTAAAAAAAAAAAA
 AAACACTCTAAATGGGCCGGGTCTAGCTGTTCTGACGATCGGN

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_002793 unedited
 GGACCGCGGGCCCAATCTANAGTCGAGTTTTTTTTTTTTTTTTTTTACTTCAGGTTTCTC
 TTTTAATAAAACAAAACCATCCAAGGTACAGTTCCAAAGTACAAAATCAACCAGGTCTGAA
 CTGATTGGTGATAAGAGCACACAGATCAGTCCTTCCTTAAGGAAACAGTTTCTCCCTGA
 TGCCCTCTTTGGTCACTATGCAGATCCGGAGTGGTCCCCAGTGTACACATCTCTCTCAG
 CCGCAGAAATGAAGACATCTTACCAGCCGATGGCTCTGTCCAAGGACAGCGGAACAT
 GCTCCACATTCTGCATGTTCTTAAAACCAACCTGGTTGTCAAGCAGGGGCTGTAGCATGG
 CACTTGCTGAGCCTCCAGCCTTGAAGGAGTCTCTCTGGTAAGACCCTACTGGATCAAAGC
 TGTATACAGCCCCCTTCTCTTTCATCAAGTCCACCGATGATGTTGTAACATAGTATG
 GAAAGAAGCGCCTTGAATACAGGATTGTAGACAGCATTGCAGCAATTGCCCCGACTCA
 TGGCCTTATTATTGGAATGCTTATACATCTTTAGCCTTGCTCAATAATCTTTGGCAGCGA
 AAGACAGTCTCCATGAAAACCGTGCATCCAAAGACTGTTTTGGCCTGGCAAATTTGGAA
 CCTTTGGGGCTTTCCCCGTATGAACTGAAAACCCCTCCACTCAATCCAGTATCCAAAACA
 ACACTTGACAACCTTCTTCAGCATTGCCAGNTTAATAACCTTCGTTGAAAACGAAGGGC
 AAAACTCCATTGCAAAGGGCCCCGGTTTTTTCGGGTCCTTCCAATCTTTTCCCGAAC
 CCAATACTGCTGTGAAGGCAACATTCACGGTGGGCTGGGGATCCGACCTGCCT

Restriction Sites:

NotI-NotI

ACCN:

NM_002793

Insert Size:

860 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_002793.2](#), [NP_002784.1](#)

RefSeq Size: 872 bp

RefSeq ORF: 726 bp

Locus ID: 5689

UniProt ID: [P20618](#)

Cytogenetics: 6q27

Domains: proteasome

Protein Families: 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. 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]