

Product datasheet for **RC209001**

PSMB9 (NM_002800) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | PSMB9 (NM_002800) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | PSMB9 |
| Synonyms: | beta1i; LMP2; PRAAS3; PSMB6i; RING12 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| ORF Nucleotide Sequence: | >RC209001 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCTGCGGGCGGGAGCACCAACCGGGGACTTACCCCGGGCGGGAGAAGTCCACACCGGGACCACCATCA
TGGCAGTGGAGTTTGACGGGGCGTTGTGATGGTTCTGATTCCCGAGTGTCTGCAGGCGAGGCGGTGGT
GAACCGAGTGTGGACAAGCTGTCCCGCTGCACGAGCGCATCTACTGTGCACTCTCTGGTTCAGCTGCT
GATGCCAAGCCGTGGCCGACATGGCCGCCTACCAGCTGGAGCTCCATGGGATAGAAGTGGAGGAACCTC
CACTTGTGGCTGCTGCAAATGTGGTGAGAAATATCAGCTATAAATATCGAGAGGACTTGTCTGCACA
TCTCATGGTAGCTGGCTGGGACCAACGTGAAGGAGGTCAGGTATATGGAACCTGGGAGGAATGCTGACT
CGACAGCCTTTGCCATTGGTGGCTCCGGCAGCACCTTTATCTATGGTTATGTGGATGCAGCATATAAGC
CAGGCATGTCTCCCGAGGAGTGCAGGCGCTTACCACAGACGCTATTGCTCTGGCCATGAGCCGGGATGG
CTCAAGCGGGGTGTCATCTACCTGGTCACTATTACAGCTGCCGGTGTGGACCATCGAGTCATCTTGGGC
AATGAAGTGC AAAATTCTATGATGAG

ACGCGTACGCGGGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC209001 protein sequence
Red=Cloning site Green=Tags(s)

MLRAGAPTGDLPRAGEVHTGTTIMAVEFDGGVVMGSDSRVSAGEAVVNRVFDKLSPLHERIYCALSGSAA
 DAQAVADMAAYQLELHGIELEEPPLVLAANVVRNISYKYREDLSAHLMVAGWDQREGGQVYGTLLGMLT
 RQPF AIGGSGSTFIYGYVDAAYKPGMSPEECRRFTTDAIALAMSRDGS SGGVIYLVITITAAAGVDHRVILG
 NELPKFYDE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6356_f08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002800

ORF Size: 657 bp

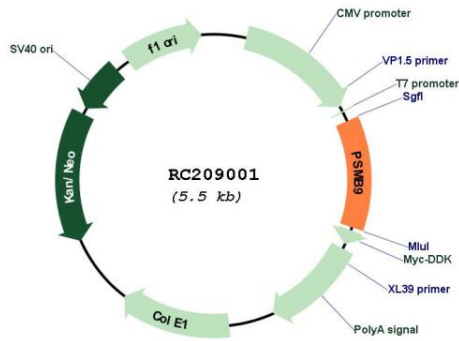
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

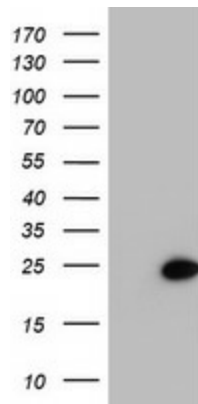
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

| | |
|-------------------------------|--|
| Reconstitution Method: | <ol style="list-style-type: none">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. |
| Note: | Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required. |
| RefSeq: | NM_002800.5 |
| RefSeq Size: | 1048 bp |
| RefSeq ORF: | 660 bp |
| Locus ID: | 5698 |
| UniProt ID: | P28065 |
| Cytogenetics: | 6p21.32 |
| Domains: | proteasome |
| Protein Families: | Druggable Genome, Protease |
| Protein Pathways: | Proteasome |
| MW: | 23.3 kDa |
| Gene Summary: | <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 proteasome B-type family, also known as the T1B family, that is a 20S core beta subunit. This gene is located in the class II region of the MHC (major histocompatibility complex). Expression of this gene is induced by gamma interferon and this gene product replaces catalytic subunit 1 (proteasome beta 6 subunit) in the immunoproteasome. Proteolytic processing is required to generate a mature subunit. [provided by RefSeq, Mar 2010]</p> |

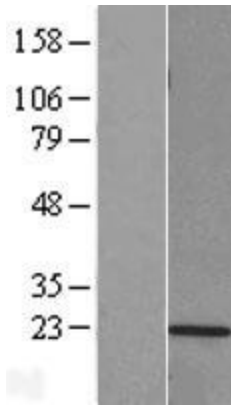
Product images:



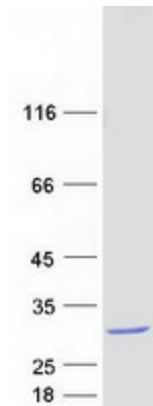
Circular map for RC209001



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PSMB9 (Cat# RC209001, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PSMB9 (Cat# [TA504349]). Positive lysates [LY419098] (100ug) and [LC419098] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY419098]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209001 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PSMB9 protein (Cat# [TP309001]). The protein was produced from HEK293T cells transfected with PSMB9 cDNA clone (Cat# RC209001) using MegaTran 2.0 (Cat# [TT210002]).