

## Product datasheet for **RC225146**

### PSMB5 (NM\_001130725) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** PSMB5 (NM\_001130725) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** PSMB5  
**Synonyms:** LMPX; MB1; X  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC225146 representing NM\_001130725  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGTTGCCAGCGTGTGGAGAGACCGCTACCGTGAACCAGCGGGTTTTTCGGACTTGGGGTCT  
GTGCAGATCTGCTGGATCTAGGTCCAGGGAGTCTCAGTGATGGTCTGAGCCTGGCCGCGCCAGGCTGGG  
TGTCAGAGAGCCAGGAATCGAAATGCTTCATGGAACAACCACCTGGCCTTCAAGTCCGCCATGGA  
GTCATAGTTGAGCTGACTCCAGGGCTACAGCGGGTCTTACATTGCCTCCAGACGGTGAAGAAGGTGA  
TAGAGATCAACCCATACCTGCTAGGCACCATGGCTGGGGCGCAGCGGATTGCAGCTTCTGGGAACGGCT  
GTTGGCTCGGCAATGTCGAATCTATGAGCTTCGAAATAAGGAACGCATCTCTGTAGCAGCTGCCTCCAAA  
CTGCTTGCCAACATGGTGTATCAGTACAAAGGCATGGGGCTGTCCATGGGCACCATGATCTGTGGCTGGG  
ATAAGAGAGGCCCTGGCCTCTACTACGTGGACAGTGAAGGGAACCGGATTCAGGGGCCACCTTCTCTGT  
AGGTTCTGGCTCTGTGTATGCATATGGGGTCTGGATCGGGGCTATTCTATGACCTGGAAGTGGAGCAG  
GCCTATGATCTGGCCGTCGAGCCATCTACCAAGCCACCTACAGAGATGCCTACTCAGGAGGTGCAGTCA  
ACCTCTACCACGTGCGGGAGGATGGCTGGATCCGAGTCTCCAGTGACAATGTGGCTGATCTACATGAGAA  
GTATAGTGGCTTACCC

**ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA**



**Protein Sequence:** >RC225146 representing NM\_001130725  
Red=Cloning site Green=Tags(s)

MALASVLERPLPVNQRGFFGLGGRADLLDLGPGSLSDGLSLAAPGWGVPEEPGIEMLHGTTTLAFKFRHG  
 VIVAADSRATAGAYIASQTVKKVIEINPYLLGTMAGGAADCSFWERLLARQCRIYELRNKERISVAAASK  
 LLANMVYQYKGMGLSMGTMICGWDKRGPLYVDSEGNRISGATFSVGSGSVYAYGVMDRGYSYDLEVEQ  
 AYDLARRAIYQATYRDAYS GGAVNLYHVREDGWIRVSSDNVADLHEKYSGSTP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja1437\\_e10.zip](https://cdn.origene.com/chromatograms/ja1437_e10.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001130725

**ORF Size:** 789 bp

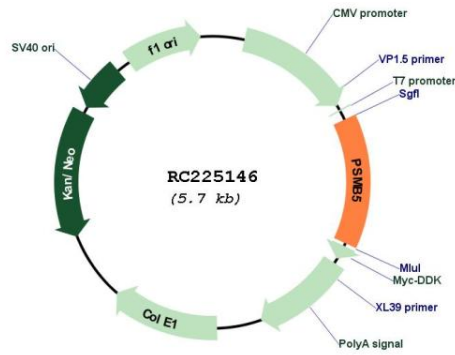
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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.

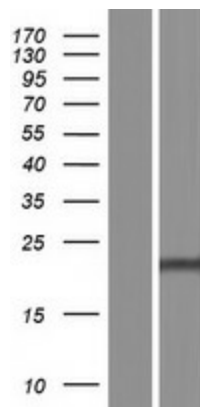
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<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 ORF:</b>	483 bp
<b>Locus ID:</b>	5693
<b>UniProt ID:</b>	<a href="#">P28074</a>
<b>Cytogenetics:</b>	14q11.2
<b>Protein Families:</b>	Protease
<b>Protein Pathways:</b>	Proteasome
<b>MW:</b>	28.48 kDa
<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 proteasome B-type family, also known as the T1B family, that is a 20S core beta subunit in the proteasome. This catalytic subunit is not present in the immunoproteasome and is replaced by catalytic subunit 3i (proteasome beta 8 subunit). Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2009]</p>

Product images:



Circular map for RC225146



Western blot validation of overexpression lysate (Cat# [LY427268]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC225146 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).