

Product datasheet for **RC200437**

PSMB10 (NM_002801) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	Myc-DDK
Symbol:	PSMB10
Synonyms:	beta2i; LMP10; MECL1; PRAAS5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC200437 representing NM_002801 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCTGAAGCCAGCCCTGGAGCCCCGAGGGGCTTCTCCTTCGAGAACTGCCAAAGAAATGCATCATTGG
 AACGCGTCCTCCCGGGGCTCAAGGTCCCTACGCACGCAAGACCGGGACCACCATCGCGGGCCTGGTGTT
 CCAAGACGGGGTCATTCTGGGCGCCGATACGCGAGCCACTAACGATTCGGTCGTGGCGGACAAGAGCTGC
 GAGAAGATCCACTTCATCGCCCCAAAATCTACTGCTGTGGGGCTGGAGTAGCCGCGGACGCCGAGATGA
 CCACACGGATGGTGGCGTCCAAGATGGAGCTACACGCGCTATCTACGGGCCGCGAGCCCCGCGTGGCCAC
 GGTCACTCGCATCTGCGCCAGACGCTCTCAGGTACCAGGGCCACGTGGGTGCATCGCTGATCGTGGGC
 GGCGTAGACCTGACTGGACCGCAGCTCTACGGTGTGCATCCCCATGGCTCCTACAGCCGTCTGCCCTTCA
 CAGCCCTGGGCTCTGGTCAGGACGCGGCCCTGGCGGTGCTAGAAGACCGTTCCAGCCGAACATGACGCT
 GGAGGCTGCTCAGGGGCTGCTGGTGGAAGCCGTACCGCCGGGATCTTGGGTGACCTGGGCTCCGGGGGC
 AATGTGGACGCATGTGTGATCACAAGACTGGCGCAAGCTGCTGCGGACACTGAGCTCACCACAGAGC
 CCGTGAAGAGGTCTGGCCGCTACCACTTTGTGCCTGGAACCACAGCTGTCCTGACCCAGACAGTGAAGCC
 ACTAACCCCTGGAGCTAGTGGAGGAACTGTGCAGGCTATGGAGGTGGAG

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA


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Protein Sequence: >RC200437 representing NM_002801
 Red=Cloning site Green=Tags(s)

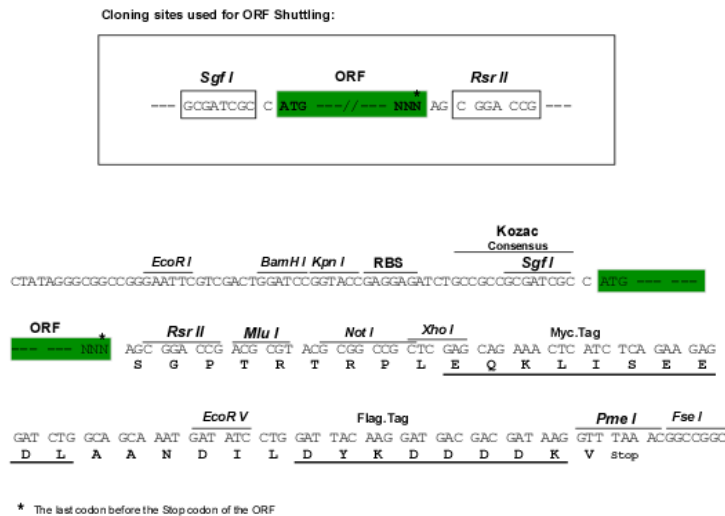
MLKPALEPRGGFSFENCQRNASLRLVPLGLKVPHARKTGTTIAGLVFQDGVILGADTRATNDSVVADKSC
 EKIHFIAPKIYCCGAGVAADAEMTTRMVASKMELHALSTGREPRVATVTRILRQTLFRYQGHV GASLIVG
 GVDLTGPQLYGVHPHGSYRLPFTALGSGQDAALVLEDRFQPNMTLEAAQGLLVEAVTAGILGDLGSGG
 NVDACVITKTGAKLLRTLSSPTEPVKRSGRYHFVPGTTAVLTQTVKPLTLELVEETVQAMEVE

SGP^{TRRRLEQKLI}SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/ja1626_a04.zip

Restriction Sites: SgfI-RsrII

Cloning Scheme:



ACCN: NM_002801

ORF Size: 819 bp

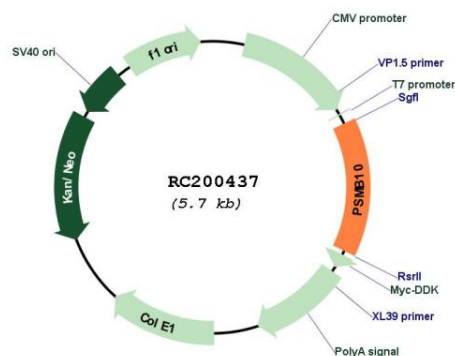
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially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

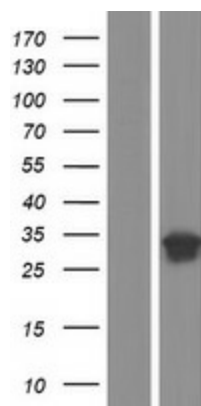
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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:	<u>NM_002801.4</u>
RefSeq Size:	1009 bp
RefSeq ORF:	822 bp
Locus ID:	5699
UniProt ID:	<u>P40306</u>
Cytogenetics:	16q22.1
Domains:	proteasome
Protein Families:	Druggable Genome, Protease
Protein Pathways:	Proteasome
MW:	28.8 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. Proteolytic processing is required to generate a mature subunit. Expression of this gene is induced by gamma interferon, and this gene product replaces catalytic subunit 2 (proteasome beta 7 subunit) in the immunoproteasome. [provided by RefSeq, Jul 2008]</p>

Product images:



Circular map for RC200437



Western blot validation of overexpression lysate (Cat# [LY419099]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200437 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).