

## Product datasheet for **RG200437**

### PSMB10 (NM\_002801) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PSMB10 (NM_002801) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PSMB10
Synonyms:	beta2i; LMP10; MECL1; PRAAS5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG200437 representing NM_002801 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCTGAAGCCAGCCCTGGAGCCCCGAGGGGGCTTCTCCTTCGAGAACTGCCAAAGAAATGCATCATTGG  
AACCGTCTCCCGGGGCTCAAGGTCCCTCACGCACGCAAGACCGGGACCACCATCGCGGGCCTGGTGT  
CCAAGACGGGGTCATTCTGGGCGCCGATACGCGAGCCACTAACGATTCGGTCGTGGCGACAAGAGCTGC  
GAGAAGATCCACTTCATCGCCCCAAAATCTACTGCTGTGGGGCTGGAGTAGCCGCGACCGCGAGATGA  
CCACACGGATGGTGGCGTCCAAGATGGAGCTACACGCGCTATCTACGGGCGCGAGCCCCGCGTGGCCAC  
GGTCACTCGCATCCTGCGCCAGACGCTCTCAGGTACCAGGGCCACGTGGGTGCATCGCTGATCGTGGGC  
GGCGTAGACCTGACTGGACCGCAGCTCTACGGTGTGCATCCCCATGGCTCCTACAGCCGTCTGCCCTTCA  
CAGCCCTGGGCTCTGGTCAGGACGCGGCCCTGGCGGTGCTAGAAGACCGGTTCCAGCCGAACATGACGCT  
GGAGGCTGCTCAGGGGCTGCTGGTGAAGCCGTCACCGCCGGATCTTGGGTGACCTGGGCTCCGGGGGC  
AATGTGGACGCATGTGTGATCACAAGACTGGCGCAAGCTGCTGCGGACACTGAGCTCACCCACAGAGC  
CCGTGAAGAGGTCTGGCCGCTACCACTTGTGCCTGGAACCACAGCTGTCCTGACCCAGACAGTGAAGCC  
ACTAACCTGGAGCTAGTGGAGGAACTGTGCAGGCTATGGAGGTGGAG

AGCGG**ACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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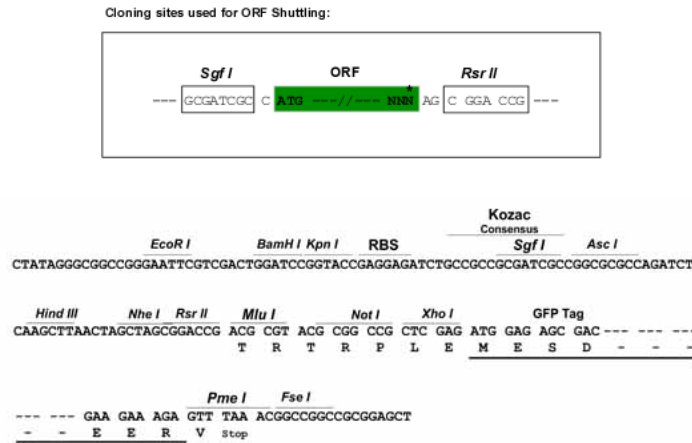
**Protein Sequence:** >RG200437 representing NM\_002801  
 Red=Cloning site Green=Tags(s)

MLKPALEPRGGFSFENCQRNASLERVLPGLKVPHARKTGTTIAGLVFQDGVILGADTRATNDSVVADKSC  
 EKIHFIAPKIYCCGAGVAADAEMTTRMVASKMELHALSTGREPRVATVTRILRQTLFRYQGHV GASLIVG  
 GVDLTGPQLYGVHPHGSYRSLPFTALGSGQDAALVLEDRFQPNMTLEAAQGLLVEAVTAGILGDLGSGG  
 NVDACVITKTGAKLLRTLSSPTEPVKRSGRYHFVPGTTAVLTQTVKPLTLELVEETVQAMEVE

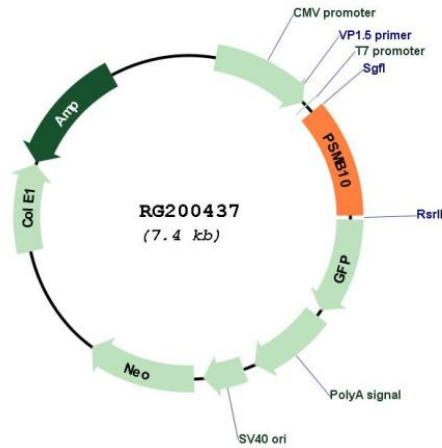
SGPTRRRLE - GFP Tag - V

**Restriction Sites:** SgfI-RsrII

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_002801

**ORF Size:** 819 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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).
<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:</b>	<a href="#">NM_002801.2</a> , <a href="#">NP_002792.1</a>
<b>RefSeq Size:</b>	1009 bp
<b>RefSeq ORF:</b>	822 bp
<b>Locus ID:</b>	5699
<b>UniProt ID:</b>	<a href="#">P40306</a>
<b>Cytogenetics:</b>	16q22.1
<b>Domains:</b>	proteasome
<b>Protein Families:</b>	Druggable Genome, Protease
<b>Protein Pathways:</b>	Proteasome
<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. 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>