

## Product datasheet for **SC329755**

### PSMC2 (NM\_001204453) Human Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** PSMC2 (NM\_001204453) Human Untagged Clone  
**Tag:** Tag Free  
**Symbol:** PSMC2  
**Synonyms:** MSS1; Nbla10058; RPT1; S7  
**Vector:** pCMV6-Entry (PS100001)  
**Fully Sequenced ORF:** >SC329755 representing NM\_001204453.  
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

```

ATGCCGGATTACCTCGGTGCCGATCAGCGGAAGACCAAGAGGATGAGAAGGACGACAAGCCCATCCGA
GCTCTGGATGAGGGGGATATTGCCTTGTGAAACTTATGGTCAGAGCACTTACTCTAGGCAGATCAAG
CAAGTTGAAGATGACATTCAGCAACTTCTCAAGAAAATTAATGAGCTCACTGGTATTAAAGAATCTGAC
ACTGGCCTGGCCCCACCAGCACTCTGGGATTTGGCTGCAGATAAGCAGACACTCCAGAGTGAACAGCCT
TTACAGGTTGCCAGGTGTACAAAGATAATCAATGCTGATTCGGAGGACCCAAAATACATTATCAACGTA
AAGCAGTTTGCCAAGTTTGTGGTGGACCTTAGTGATCAGGTGGCACCTACTGACATTGAAGAAGGGATG
AGAGTGGGGTAA
  
```

**Restriction Sites:** SgfI-MluI

**ACCN:** NM\_001204453

**Insert Size:** 426 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).


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**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\\_001204453.1](#)

**RefSeq Size:** 989 bp

**RefSeq ORF:** 426 bp

**Locus ID:** 5701

**UniProt ID:** [P35998](#)

**Cytogenetics:** 7q22.1

**Protein Pathways:** Proteasome

**MW:** 15.8 kDa

**Gene Summary:** The 26S proteasome is a multicatalytic proteinase complex with a highly ordered structure composed of 2 complexes, a 20S core and a 19S regulator. The 20S core 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. The 19S regulator is composed of a base, which contains 6 ATPase subunits and 2 non-ATPase subunits, and a lid, which contains up to 10 non-ATPase 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 one of the ATPase subunits, a member of the triple-A family of ATPases which have a chaperone-like activity. This subunit has been shown to interact with several of the basal transcription factors so, in addition to participation in proteasome functions, this subunit may participate in the regulation of transcription. This subunit may also compete with PSMC3 for binding to the HIV tat protein to regulate the interaction between the viral protein and the transcription complex. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Mar 2011]

**Transcript Variant:** This variant (2) includes an alternate segment at its 3' terminal exon which contains a premature stop codon, compared to variant 1. This variant encodes an isoform (2) with a shorter C-terminus, compared to isoform 1.