

## Product datasheet for **SC320769**

### PSMD2 (NM\_002808) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PSMD2 (NM_002808) Human Untagged Clone
Tag:	Tag Free
Symbol:	PSMD2
Synonyms:	P97; RPN1; S2; TRAP2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF:

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>OriGene sequence for NM_002808.3
ATGGAGGAGGGAGGCCGGGACAAGGCGCCGGTGCAGCCCCAGCAGTCTCCAGCGGCGGCC
CCCCGGCGCACGGACGAGAAGCCGAGCGGCAAGGAGCGGCGGGATGCCGGGGACAAGGAC
AAAGAACAGGAGCTGTCTGAAGAGGATAAACAGCTTCAAGATGAAGTGGAGATGCTCGTG
GAACGACTAGGGGAGAAGGATACATCCCTGTATCGACCAGCGCTGGAGGAATTGCGAAGG
CAGATTCGTTCTTCTACAACCTCCATGACTTCAGTGCCCAAGCCTCTCAAATTTCTCGCT
CCACACTATGGCAAATGAAGGAAATCTATGAGAACATGGCCCCCTGGGGAGAATAAGCGT
TTTGCTGCTGACATCATCTCCGTTTTGGCCATGACCATGAGTGGGAGCGTGAGTGCCTC
AAGTATCGGCTAGTGGGCTCCCAGGAGGAATTGGCATCATGGGGTTCATGAGTATGTCAGG
CATCTGGCAGGAGAAGTGGCTAAGGAGTGGCAGGAGCTGGATGACGCAGAGAAGTCCAG
CGGGAGCCTCTGCTCACTCTGGTGAAGGAAATCGTCCCCATAACATGGCCACAATGCA
GAGCATGAGGCTTGCACCTGCTTATGGAATGAGCAGGTGGACATGCTGGAGAAGGAC
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CCTGAGCCTGAGAACTCAGCCCTACTGCGTTGTGCCCTGGGTGTGTTCCGAAAGTTTAGC
CGTTCCTCCTGAAGCTCTGAGATTGGCATTGATGCTCAATGACATGGAGTTGGTAGAAGAC
ATCTTCACCTCCTGCAAGGATGTGGTAGTACAGAAACAGATGGCATTATGCTAGGCCGG
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GCCTGTGGAATGATAGCAGTAGGGTCTGCAATGGAGATGTAACCTCCACTATCCTTCAG
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GCTATGGGGGAGGAGATTGGTGCAGAGATGGCATTACGAACCTTTGGCCACTTGTGAGA
TATGGGGAGCCTACACTCCGGAGGGCTGTACCTTAGCACTGGCCCTCATCTCTGTTTCA
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TACCACAGCGACCGGAGCTTATGAGCCAGGTGGCCGTGGCTGGACTGCTCACTGTGCTT
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CCAGTGTCTGCTCGTGTGGGCCAGGAGTGGATGTGGTGGGCCAGGCTGGCAAGCCGAAG
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GAATTGGCCACTGAGGAGTTTCTTCTGTTACCCCATCTGGAAGGTTTGTATCCTT
CGGAAGAACCCCAATTATGATCTCTAAGTGACCACCAGGGGCTCTGAACTGCAGCTGATG
TTATCAGCAGGCCATGCATCCTGCTGCCAAGGGTGGACACGGCTGCAGACTTCTGGGGGA
ATTGTCGCTCCTGCTCTTTTGTACTGAGTGAGATAAGGTTGTTCAATAAAGACTTTTA
TCCCAAGGTCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAA
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<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_002808
<b>OTI Disclaimer:</b>	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).
<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<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>	<u><a href="#">NM_002808.3</a></u> , <u><a href="#">NP_002799.3</a></u>
<b>RefSeq Size:</b>	2990 bp
<b>RefSeq ORF:</b>	2727 bp
<b>Locus ID:</b>	5708
<b>UniProt ID:</b>	<u><a href="#">Q13200</a></u>
<b>Cytogenetics:</b>	3q27.1
<b>Domains:</b>	PC_rep
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Proteasome

**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 non-ATPase subunits of the 19S regulator lid. In addition to participation in proteasome function, this subunit may also participate in the TNF signalling pathway since it interacts with the tumor necrosis factor type 1 receptor. A pseudogene has been identified on chromosome 1. Alternative splicing results in multiple transcript variants of this gene. [provided by RefSeq, Jul 2013]

Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1).