

Product datasheet for **SC321353**

PSMC2 (NM_002803) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PSMC2 (NM_002803) Human Untagged Clone
Tag:	Tag Free
Symbol:	PSMC2
Synonyms:	MSS1; Nbla10058; RPT1; S7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_002803.2
 ATTAAGGAGCGGAGGCTTTTGGAGCTGCTAAAAATGCCGGATTACCTCGGTGCCGATCAGC
 GGAAGACCAAAGAGGATGAGAAGGACGACAAGCCATCCGAGCTCTGGATGAGGGGGATA
 TTGCCTTGTTGAAAACCTTATGGTCAGAGCACTTACTCTAGGCAGATCAAGCAAGTTGAAG
 ATGACATTCAGCAACTTCTCAAGAAAATTAATGAGCTCACTGGTATTAAGAATCTGACA
 CTGGCCTGGCCCCACCAGCACTCTGGGATTTGGCTGCAGATAAGCAGACACTCCAGAGTG
 AACAGCCTTTACAGGTTGCCAGGTGTACAAAGATAATCAATGCTGATTCCGAGGACCCAA
 AATACATTATCAACGTAAGCAGTTTGCAGTTTGTGGTGGACCTTAGTGATCAGGTGG
 CACCTACTGACATTGAAGAAGGGATGAGAGTGGGCGTGGATAGAAATAAATCAAATTC
 ACATTCCATTGCCTCCTAAGATTGACCCAACAGTTACCATGATGCAGGTGGAAGAGAAAC
 CTGATGTCACATACAGTGATGTTGGTGGCTGTAAGGAACAGATTGAGAACTGCGAGAAG
 TAGTTGAAACCCATTACTTCATCCAGAGAGGTTTGTGAACCTTGGCATTGAGCCTCCCA
 AGGGCGTGCTGCTCTTTGGTCCACCCGGTACAGGCAAGCACTCTGTGCCGGGGCAGTTG
 CTAATCGGACTGATGCGTGCTTCATTTCGAGTTATTGGATCTGAGCTTGTACAGAAATACG
 TCGGTGAGGGGGCTCGAATGGTTCGTGAACTCTTTGAAATGGCCAGAACAAAAAAGCCT
 GCCTTATCTTCTTTGATGAAATTGATGCTATTGGAGGGGCTCGTTTTGATGATGGTGCTG
 GAGGTGACAATGAAGTGCAGAGAACAATGTTGAACTGATCAATCAGCTTGATGGTTTTG
 ATCCTCGAGGCAATATTAAGTGCTGATGGCCACTAACAGACCTGATACTTTGGATCCAG
 CACTGATGAGGCCAGGGAGATTGGATAGAAAAATTGAATTTAGCTTGCCCGATCTAGAGG
 GTCGGACCCACATATTTAAGATTACGCTCGTTCAATGAGTGTTGAAAGAGATATCAGAT
 TTGAACTGTTAGCACGACTGTGTCCAAATAGCACTGGTGTGAGATTAGAAGCGTCTGCA
 CAGAGGCTGGTATGTTTGCCATCAGAGCACGGCGAAAAATTGCTACCGAGAAGGATTTCT
 TGAAGCTGTAATAAAGGTCATTAAGTCTTATGCCAAATTCAGTGCTACTCCTCGTTACA
 TGACATACAACCTGAACCCTGAAGGCTTTCAAGTAAAACCTTTAAATTGGAATCCTAACCT
 TATATAGACTTGTTAATAACCAATTCATAAACAATAAATGGCTTCAAAATTTGATGCTT
 TTTTCCATATCTTCTTGTAAATAATAAAAAGGTGATTTCTAATGTTAAAAA
 AAAAAA



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Restriction Sites:	Please inquire
ACCN:	NM_002803
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).
OTI Annotation:	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.
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.
RefSeq:	<u>NM_002803.2</u> , <u>NP_002794.1</u>
RefSeq Size:	1545 bp
RefSeq ORF:	1302 bp
Locus ID:	5701
UniProt ID:	<u>P35998</u>
Cytogenetics:	7q22.1
Domains:	AAA, AAA
Protein Pathways:	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 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 (1) represents the longer transcript and encodes the longer isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.