

Product datasheet for **RC201790**

PSMC3 (NM_002804) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PSMC3 (NM_002804) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PSMC3
Synonyms:	DCIDP; RPT5; TBP1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC201790 representing NM_002804
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAATCTGCTGCCGAATATTGAGAGTCCAGTGACTCGGCAGGAGAAGATGGCGACCGTGTGGGATGAGG
 CCGAGCAAGATGGAATTGGGGAGGAGGTGCTCAAGATGTCCACGAGGAGATCATCCAGCCACACGGCT
 GCTGGACAGTGAGATCAAGATCATGAAGAGTGAAGTGTGAGAGTCACCCATGAGCTCCAAGCCATGAAG
 GACAAGATAAAAGAGAACAGTGAGAAAACAAAGTGAACAAGACCCTGCCGTACCTTGTCTCCAACGTCA
 TCGAGCTCCTGGATGTTGATCCTAATGACCAAGAGGAGGATGGTGCCAATATTGACCTGGACTCCCAGAG
 GAAGGGCAAGTGTGCTGTGATCAAAACCTCTACACGACAGACGTACTTCCTTCTGTGATTGGGTTGGTG
 GATGCTGAAAAGCTAAAGCCAGGAGACCTGGTGGGTGTGAACAAAGACTCCTATCTGATCCTGGAGACGC
 TGCCACAGAGTATGACTCGCGGTGAAGGCCATGGAGGTAGACGAGAGGCCACGGAGCAATACAGTGA
 CATTGGGGGTTTGGACAAGCAGATCCAGGAGCTGGTGGAGGCCATTGTCTTGCCAATGAACCACAAGGAG
 AAGTTTGAGAACTTGGGGATCCAACCTCCAAAAGGGGTGCTGATGTATGGCCCCCAGGGACGGGAAGA
 CCCTCCTGGCCCCGGCCTGTGCCGCACAGACTAAGGCCACCTTCCTAAAGCTGGCTGGCCCCAGCTGGT
 GCAGATGTTTATTGGAGATGGTGCCAAGCTAGTCCGGGATGCCTTTGCCCTGGCCAAGGAGAAAGCGCC
 TCTATCATCTTATTGATGAGTTGGATGCCATCGGCACCAAGCGCTTTGACAGTGAGAAGGCTGGGGACC
 GGGAGGTGCAGAGGACAAATGCTGGAGCTTCTGAACCAGCTGGATGGCTTCCAGCCCAACACCCAAGTTAA
 GGTAATTGCAGCCACAACAGGGTGGACATCCTGGACCCCGCCCTCCTCCGCTCGGGCCGCTTGACCGC
 AAGATAGAGTCCCAGATGCCAATGAGGAGGCCCGGCCAGAATCATGCAGATCCACTCCGAAAAGATGA
 ATGTCAGTCTGACGTGAACTACGAGGAGCTGGCCCGCTGCACAGATGACTTCAATGGGGCCAGTGCAA
 GGCTGTGTGTGGAGGGCGGCATGATCGCACTGCGCAGGGGTGCCACGGAGCTACCCACGAGGACTAC
 ATGGAAGGCATCCTGGAGGTGCAGGCCAAGAAGAAAGCCAACCTACAATACTACGCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC201790 representing NM_002804
 Red=Cloning site Green=Tags(s)

MNLLPNIESPVTRQEKMATVWDEAEQDGIGEEVLKMSSTEEIIQRTRLLDSEIKIMKSEVLRVTHELQAMK
 DDIKENSEKIKVNTLPYLVSNVIELLDVDPNDQEEDGANIDLDSDQRKGCVAVIKSTRQTYFLPVIQGLV
 DAEKLPKPDLVGVNKDSYLILETLPTDYDSRVKAMEVDERPTEQYSDIGGLDKQIQELVEAIVLPMNHKE
 KFENLGIQPPKGVLMYPPGTGKTLARACAAQTKATFLKLAGPQLVQMFIGDGAKLVRDAFALAKEKAP
 SIIIFIDELDAIGTKRFDSEKAGDREVQRTMLELLNQLDGFQNTQVKVIAATNRVDILDPALLRSRGLDR
 KIEFPMPNEEARARIMQIHSRKMNVSPDVNYEELARCTDDFNGAQCKAVCVEAGMIALLRRGATELTHEDY
 MEGILEVQAKKANLQYYA

TRTRPLEQKLISEEDLAANDILDYKDDDDKVV

Chromatograms:

https://cdn.origene.com/chromatograms/mg2549_f07.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_002804

ORF Size: 1317 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:
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_002804.4](#), [NP_002795.2](#)

RefSeq Size: 1618 bp

RefSeq ORF: 1320 bp

Locus ID: 5702

UniProt ID: [P17980](#)

Cytogenetics: 11p11.2

Domains: AAA, AAA

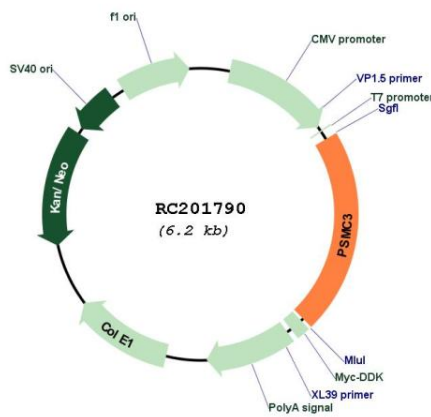
Protein Families: Druggable Genome, Transcription Factors

Protein Pathways: Proteasome

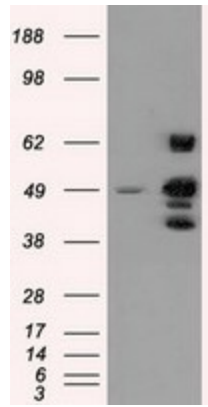
MW: 49 kDa

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 that have chaperone-like activity. This subunit may compete with PSMC2 for binding to the HIV tat protein to regulate the interaction between the viral protein and the transcription complex. A pseudogene has been identified on chromosome 9. [provided by RefSeq, Jul 2008]

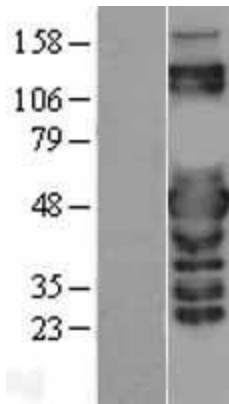
Product images:



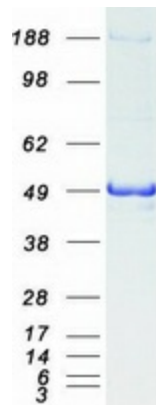
Circular map for RC201790



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PSMC3 (Cat# RC201790, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PSMC3(Cat# [TA500922]). Positive lysates [LY400992] (100ug) and [LC400992] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400992]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201790 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PSMC3 protein (Cat# [TP301790]). The protein was produced from HEK293T cells transfected with PSMC3 cDNA clone (Cat# RC201790) using MegaTran 2.0 (Cat# [TT210002]).