

## Product datasheet for **RC226555**

### 26S proteasome non ATPase regulatory subunit 12 (PSMD12) (NM\_174871) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	26S proteasome non ATPase regulatory subunit 12 (PSMD12) (NM_174871) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	26S proteasome non ATPase regulatory subunit 12
Synonyms:	p55; Rpn5; STISS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC226555 representing NM\_174871  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGGCGGACGGCGCTCGGAGCGGGCTGACGGGCGCATCGTCAAGATGGAGGTGGACTACAGCGCCACGG  
 TGATCAGCGCCTACCCGAGTGTGCGAAGCTAGCCAAGGCTTCCGATATGGTATCGACATCCCGTATCCT  
 AGTTGCAGTAGTGAAGATGTGCTATGAGGCTAAAGAATGGGATTTACTTAATGAAAATATTATGCTTTTG  
 TCCAAAAGGCGGAGTCAGTTAAAACAAGCTGTTGCCAAAATGGTCAACAGTGTGTACTTATGTTGAGG  
 AAATCACAGACCTTCTATCAAACCTCGATTAATTGATACTCTACGAATGGTTACCGAAGGCAAGATTTA  
 TGTTGAAATTGAGCGTGCAGCTGACTAAAACATTAGCAACTATAAAAGAACAAAATGGTGATGTGAAA  
 GAGGCAGCCTCCATTTACAGGAGTTACAGGTGGAACCTACGGGCAATGGAAAAGAAAGCGGAGTGG  
 AATTTATTTGGAGCAAATGAGGCTCTGCCTAGCTGTGAAGGATTACATTCGAACACAAAATCATCAGCAA  
 GAAAATTAACACCAAATTTTCCAGGAAGAAAATACAGAGAAATTAAGTTGAAGTACTATAATTTAATG  
 ATTCAGCTGGATCAACATGAGGGATCCTATTTGTCTATTTGTAAGCACTACAGAGCAATATATGATACTC  
 CCTGTATACAGGCAGAAAAGTAAAAATGGCAGCAGGCTCTGAAGAGTGTGTACTCTATGTTATCCTGGC  
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 TGA AAAAGGTTGAAAGACTTGAAGAACAGAGTTGTTGAACATAATATTAGAATAATGGCCAAGTATTAT  
 ACTCGGATAACAATGAAAAGGATGGCACAGCTTCTGGATCTATCTGTTGATGAGTCCGAAGCCTTCTCT  
 CAAATCTAGTAGTTAACAAGACCATCTTTGCTAAAGTAGACAGATTAGCAGGAATTATCAACTTCCAGAG  
 ACCCAAGGATCCAAATAATTTATTAATGACTGGTCTCAGAAACTGAACTCATTAAATGTCTCTGGTTAAC  
 AAAACTACGCATCTCATAGCCAAAGAGGAGATGATACATAATCTACAA

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC226555 representing NM\_174871  
 Red=Cloning site Green=Tags(s)

MADGGSERADGRIVKMEVDYSATVDQRLPECAKLAKASDMVSTSRILVAVVKMCYEAKEDLLNENIMLL  
 SKRRSQLKQAVAKMVQCCTYVEEITDLP IKLRL IDTLRMVTEGKIYVEIERARLTKTLATIKEQNGDVK  
 EAASILQELQVETYGSMEKKERVEFILEQMRLCLAVKDYIRTQIISKKINTKFFQEENTEKLLKLYNLM  
 IQLDQHEGYSLSICKHYRAIYDTPCIQAESEKWQALKSVVLYVILAPFDNEQSDLVHRI SGDKLEEIP  
 KYKDLLKLF TTMELMRWSTLVEDYGMELRKGSLSPATDVF GSTEEGKRWKDLKNRVVEHNIRIMAKYY  
 TRITMKRMAQLLDL SVDESEAFLSNLV VNKIFAKVDRLAGIINFQRPKDPNNLLNDWSQKLNLSMLSVN  
 KTHLIAKEEMIHNLQ

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk8059\\_h02.zip](https://cdn.origene.com/chromatograms/mk8059_h02.zip)

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**



**ACCN:** NM\_174871

**ORF Size:** 1308 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_174871.4](#)

RefSeq ORF: 1311 bp

Locus ID: 5718

UniProt ID: [O00232](#)

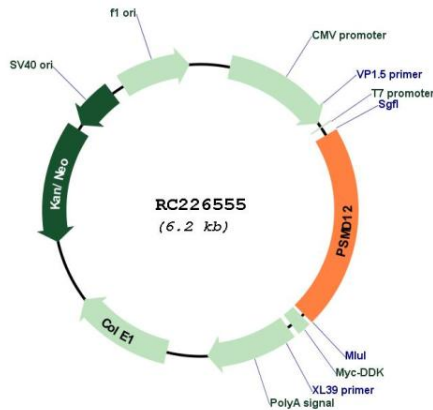
Cytogenetics: 17q24.2

Protein Pathways: Proteasome

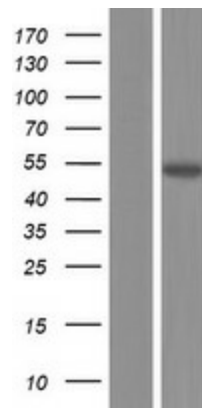
MW: 50.4 kDa

**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 a non-ATPase subunit of the 19S regulator. A pseudogene has been identified on chromosome 3. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2015]

**Product images:**



Circular map for RC226555



Western blot validation of overexpression lysate (Cat# [LY430412]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC226555 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).