

## Product datasheet for SC322079

## OriGene Technologies, Inc.

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## Proteasome 20S alpha 5 (PSMA5) (NM 002790) Human Untagged Clone

**Product data:** 

**Product Type: Expression Plasmids** 

**Product Name:** Proteasome 20S alpha 5 (PSMA5) (NM\_002790) Human Untagged Clone

Tag: Tag Free

Proteasome 20S alpha 5 Symbol:

Synonyms: PSC5; ZETA **Mammalian Cell** 

Selection:

Neomycin

Vector: pCMV6-AC (PS100020) E. coli Selection: Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for SC322079

> GTGGGTGAGTTGGCTGCCGGTGAGTTGGGTGCCGGTGGAGTCGTGTTGGTCCTCAGAATC CCCGCGTAGCCGCTCCTCCTACCCTCGCCATGTTTCTTACCCGGTCTGAGTACGAC AGGGGCGTGAATACTTTTCTCCCGAAGGAAGATTATTTCAAGTGGAATATGCCATTGAG GCTATCAAGCTTGGTTCTACAGCCATTGGGATCCAGACATCAGAGGGTGTGTGCCTAGCT GTGGAGAAGAGAATTACTTCCCCACTGATGGAGCCCAGCAGCATTGAGAAAATTGTAGAG ATTGATGCTCACATAGGTTGTGCCATGAGTGGGCTAATTGCTGATGCTAAGACTTTAATT GATAAAGCCAGAGTGGAGACACAGAACCACTGGTTCACCTACAATGAGACAATGACAGTG GAGAGTGTGACCCAAGCTGTGTCCAATCTGGCTTTGCAGTTTGGAGAAGAAGATGCAGAT CCAGGTGCCATGTCTCGTCCCTTTGGAGTAGCATTATTATTTGGAGGAGTTGATGAGAAA GGACCCCAGCTGTTTCATATGGACCCATCTGGGACCTTTGTACAGTGTGATGCTCGAGCA ATTGGCTCTGCTTCAGAGGGTGCCCAGAGCTCCTTGCAAGAAGTTTACCACAAGTCTATG ACTTTGAAAGAAGCCATCAAGTCTTCACTCATCATCCTCAAACAAGTAATGGAGGAGAAG CTGAATGCAACAACATTGAGCTAGCCACAGTGCAGCCTGGCCAGAATTTCCACATGTTC ACAAAGGAAGAACTTGAAGAGGTTATCAAGGACATTTAAGGAATCCTGATCCTCAGAACT TCTCTGGGACAATTTCAGTTCTAATAATGTCCTTAAATTTTATTTCCAGCTCCTGTTCCT TGGAAAATCTCCATTGTATGTGCATTTTTTAAATGATGTCTGTACATAAAGGCAGTTCTG

**Restriction Sites:** Please inquire ACCN: NM 002790

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).



## Proteasome 20S alpha 5 (PSMA5) (NM\_002790) Human Untagged Clone - SC322079

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:** 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 002790.2</u>, <u>NP 002781.2</u>

 RefSeq Size:
 1023 bp

 RefSeq ORF:
 726 bp

 Locus ID:
 5686

 UniProt ID:
 P28066

 Cytogenetics:
 1p13.3

**Domains:** proteasome

**Protein Families:** Druggable Genome, Protease

**Protein Pathways:** Proteasome

**Gene Summary:** The proteasome is a multicatalytic proteinase complex with a highly ordered ring-shaped 20S

core structure. The core structure 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. 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 member of the peptidase T1A family, that is a 20S core alpha subunit. Multiple alternatively spliced transcript variants encoding two distinct isoforms have been

found for this gene. [provided by RefSeq, Dec 2010]

Transcript Variant: This variant (1) is the predominant 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.