

Product datasheet for SC321048

OriGene Technologies, Inc.

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Proteasome subunit alpha type 6 (PSMA6) (NM_002791) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: Proteasome subunit alpha type 6 (PSMA6) (NM_002791) Human Untagged Clone

Tag: Tag Free

Symbol: Proteasome subunit alpha type 6

Synonyms: IOTA; p27K; PROS27

Mammalian Cell

Selection:

Neomycin

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

Fully Sequenced ORF: >OriGene sequence for NM_002791.1

GCAACTTCCGGGAGGTGCTTGTGTGCCTGGTGCGGGAGCTACGGGGCCCAGGGATTGTGT TTAAAGTAGTGCTTCTACCAACATGTCCCGTGGTTCCAGCGCCGGTTTTGACCGCCACAT TACCATTTTTCACCCGAGGGTCGGCTCTACCAAGTAGAATATGCTTTTAAGGCTATTAA CCAGGGTGGCCTTACATCAGTAGCTGTCAGAGGGAAAGACTGTGCAGTAATTGTCACACA GAAGAAAGTACCTGACAAATTATTGGATTCCAGCACAGTGACTCACTTATTCAAGATAAC TGAAAACATTGGTTGTGTGATGACCGGAATGACAGCTGACAGCAGATCCCAGGTACAGAG GGCACGCTATGAGGCAGCTAACTGGAAATACAAGTATGGCTATGAGATTCCTGTGGACAT GCTGTGTAAAAGAATTGCCGATATTTCTCAGGTCTACACACAGAATGCTGAAATGAGGCC TCTTGGTTGTTGTATGATTTTAATTGGTATAGATGAAGAGCAAGGCCCTCAGGTATATAA TGAGTCAACCAGCTTCCTTGAAAAAAAGTGAAGAAGAAATTTGATTGGACATTTGAACA GACAGTGGAAACTGCAATTACATGCCTGTCTACTGTTCTATCAATTGATTTCAAACCTTC AGAAATAGAAGTTGGAGTAGTGACAGTTGAAAATCCTAAATTCAGGATTCTTACAGAAGC AGAGATTGATGCTCACCTTGTTGCTCTAGCAGAGAGAGACTAAACATTGTCGTTAGTTTA CCAGATCCGTGATGCCACTTACCTGTGTTTTGGTAACAACAAACCAACATCATGGAGGT CCCTGGATTGAAAAAGGAGCCTCTCCCACTCCTACCACCGAAGTGGTTAGGACTCTA

Restriction Sites: Please inquire **ACCN:** NM 002791





Proteasome subunit alpha type 6 (PSMA6) (NM_002791) Human Untagged Clone - SC321048

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: 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 002791.1</u>, <u>NP 002782.1</u>

RefSeq Size: 1035 bp RefSeq ORF: 741 bp Locus ID: 5687

 UniProt ID:
 P60900

 Cytogenetics:
 14q13.2

Domains: proteasome

Protein Families: Druggable Genome, Protease, Stem cell - Pluripotency

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 transcript variants encoding several different isoforms have been found for this gene. A pseudogene has been identified on the Y chromosome. [provided by RefSeq, Aug

2013]

Transcript Variant: This variant (1) encodes the longest isoform (a).