

Product datasheet for **SC321319**

S4 (PSMC1) (NM_002802) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	S4 (PSMC1) (NM_002802) Human Untagged Clone
Tag:	Tag Free
Symbol:	S4
Synonyms:	P26S4; p56; RPT2; S4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for NM_002802.2
 TTCCGGCAGCGGCAGCTCAAGTGGCCAAGGCAAGATGGGTCAAAGTCAGAGTGGTGGTCA
 TGGTCCTGGAGGTGGCAAGAAGGATGACAAGGACAAGAAAAAGAAATATGAACCTCCTGT
 ACCAACTAGAGTGGGAAAAAGAAGAAGAAAACAAAGGGACCAGATGCTGCCAGCAAAC
 GCCACTGGTGACACCTCACACTCAGTGCCGGTTAAAATTACTGAAGTTAGAGAGAATTAA
 AGACTATCTTCTCATGGAGGAAGAATTCATTAGAAATCAGGAACAATGAAACCATTAGA
 AGAAAAGCAAGAGGAGGAAAGATCAAAAGTGGATGATCTGAGGGGGACCCCGATGTCAGT
 AGGAACCTTGAAGAGATTATTGATGACAATCATGCCATCGTGTCTACATCTGTGGGCTC
 AGAACACTACGTACGATTCTTTTCAATTTGTAGACAAGGATCTGCTGGAACCTGGCTGCTC
 GGTCTGCTCAACCACAAGGTGCATGCCGTGATAGGGGTGCTGATGGATGACACGGATCC
 CCTGGTCACAGTATGAAGGTAGAAAAGGCCCCCAAGGAGACCTATGCAGATATTGGGG
 GTTGGACAACCAATTCAGGAAATTAAGGAATCTGTGGAGCTTCTCCTCACCCATCCTGA
 ATATTATGAAGAGATGGGTATAAAGCCTCCTAAGGGGGTCACTTCTATGGTCCACCTGG
 CACAGGTAACCTTGTAGCCAAAGCAGTAGCAAACCAACCTCAGCCACTTTCTTGAG
 AGTGGTTGGCTCTGAACCTTATTCAGAAGTACCTAGGTGATGGGCCAAACTCGTACGGGA
 ATTGTTCCGAGTTGCTGAAGAACATGCACCGTCCATCGTGTATTGATGAAATTGACGC
 CATTGGGACAAAAAGATATGACTCCAATTCTGGTGGTGAAGAGAGAAATCAGCGAACAAT
 GTTGGAACCTGCTGAACCGATTGGATGGATTTGATTCTAGGGGAGATGTGAAAGTTATCAT
 GGCCACAAACCGAATAGAAACTTTGGATCCAGCACTTATCAGACCAGGCCGATTGACAG
 GAAGATTGAGTTCCTCCCTGCCTGATGAAAAGACGAAGAAGCGCATCTTTCAGATTCACAC
 AAGCAGGATGACGCTGGCTGATGATGTAACCCTGGACGACCTGATCATGGCTAAAGATGA
 CCTCTCTGGTGTGACATCAAGGCAATCTGTACAGAAGCTGGTCTGATGGCCTTAAGAGA
 ACGTAGAATGAAAGTAACAAATGAAGACTTCAAAAAATCTAAAGAAAATGTTCTTTATAA
 GAAACAGGAAGGCACCCCTGAGGGGCTGTATCTCTAATGAACCATGGCTGTCATCAGGAA
 AATGGTTGGGAGATTTCTCAATCCCTGAAAAGGGATGAGGTTGGGGAGTTGCCAGAGGA
 ATCCCTGTTCCCACTGATTTTTATTAGCAAACATCCTGTGTCTTTTGGAGTACGATGTG
 TAAGTGCCATTGGGTGGCCTGTTGGTCACTGTGCAGCAGTCTGCTTCCAATAAAGCGT
 GCTCTTTCACAAACAAAAA

Restriction Sites: Please inquire

ACCN: NM_002802

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: [NM_002802.2](#), [NP_002793.2](#)

RefSeq Size: 1586 bp

RefSeq ORF: 1323 bp

Locus ID: 5700

UniProt ID: [P62191](#)

Cytogenetics: 14q32.11

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 and a 20S core alpha subunit interact specifically with the hepatitis B virus X protein, a protein critical to viral replication. This subunit also interacts with the adenovirus E1A protein and this interaction alters the activity of the proteasome. Finally, this subunit interacts with ataxin-7, suggesting a role for the proteasome in the development of spinocerebellar ataxia type 7, a progressive neurodegenerative disorder. [provided by RefSeq, Jul 2008]

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