

## Product datasheet for **TP301810L**

### S4 (PSMC1) (NM\_002802) Human Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human proteasome (prosome, macropain) 26S subunit, ATPase, 1 (PSMC1), 1 mg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC201810 protein sequence <b>Red</b> =Cloning site <b>Green</b> =Tags(s)

MGQSQSGGHGPGGGKKDDKDKKKKYEPPVPTRVGKKKKKTKGPDAAASKLPLVTPHTQCRLKLLKLERIKD  
YLLMEEEFIRNQE QMKPLEEKQEEERSKVDDL RGT PMSVGTLEEIIDDNHAVSTSVGSEHYVSILSFVD  
KDLLEPGCSVLLNHKVVHAVIGVLMDDTDPLVTVMKVEKAPQETYADIGGLDNQIQEIKESVELPLTHPEY  
YEEMGIKPPKGVILYGPPGTGKTL LAKAVANQTSATFLRVV GSELIQKYLGDGPKLVRELFRVAEEHAPS  
IVFIDEIDAIGTKRYDSNSGGEREIQR TMLLELLNQLDGFDSRGDVKVMATNRIETLDPALIRPGRIDRK  
IEFPLPDEKTKKRIFQIHTSRMTLADDVTLDDLIMAKDDL S GADIKAICTEAGLMALRERRRMKVTNEDFK  
KSKENVLYKKQEGTPEGLYL

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

Tag:	C-Myc/DDK
Predicted MW:	49 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.



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RefSeq: [NP\\_002793](#)

Locus ID: 5700

UniProt ID: [P62191](#), [Q53XL8](#)

RefSeq Size: 1586

Cytogenetics: 14q32.11

RefSeq ORF: 1320

Synonyms: P26S4; p56; RPT2; S4

**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]

**Protein Pathways:** Proteasome

### Product images:



Coomassie blue staining of purified PSMC1 protein (Cat# [TP301810]). The protein was produced from HEK293T cells transfected with PSMC1 cDNA clone (Cat# [RC201810]) using MegaTran 2.0 (Cat# [TT210002]).