Recombinant Human PSMC1 Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. PSMC1-2323H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	PSMC1 MS Standard C13 and N15-labeled recombinant protein (NP_002793) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.
Species	Human
Source	HEK293
Description	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.

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Molecular Mass	49.2 kDa
AA Sequence	MGQSQSGGHGPGGGKKDDKDKKKKYEPPVPTRVGKKKKKTKGPDAASKLPLVTP HTQCRLKLLKLERIKDYLLMEEEFIRNQEQMKPLEEKQEEERSKVDDLRGTPMSVGT LEEIIDDNHAIVSTSVGSEHYVSILSFVDKDLLEPGCSVLLNHKVHAVIGVLMDDTDPL VTVMKVEKAPQETYADIGGLDNQIQEIKESVELPLTHPEYYEEMGIKPPKGVILYGPP GTGKTLLAKAVANQTSATFLRVVGSELIQKYLGDGPKLVRELFRVAEEHAPSIVFIDEI DAIGTKRYDSNSGGEREIQRTMLELLNQLDGFDSRGDVKVIMATNRIETLDPALIRPG RIDRKIEFPLPDEKTKKRIFQIHTSRMTLADDVTLDDLIMAKDDLSGADIKAICTEAGLM ALRERRMKVTNEDFKKSKENVLYKKQEGTPEGLYLTRTRPLEQKLISEEDLAANDILD YKDDDDKV		**Purity**	> 80% as determined by SDS-PAGE and Coomassie blue staining		**Stability**	Stable for 3 months from receipt of products under proper storage and handling conditions.		**Storage**	Store at -80 centigrade. Avoid repeated freeze-thaw cycles.		**Concentration**	50 μg/mL as determined by BCA		**Storage Buffer**	100 mM glycine, 25 mM Tris-HCl, pH 7.3.

GENE INFORMATION

Gene Name	PSMC1 proteasome 26S subunit, ATPase 1 [Homo sapiens (human)]
Official Symbol	PSMC1
Synonyms	PSMC1; proteasome (prosome, macropain) 26S subunit, ATPase, 1; 26S protease regulatory subunit 4; p56; S4; proteasome 26S ATPase subunit 1; proteasome 26S

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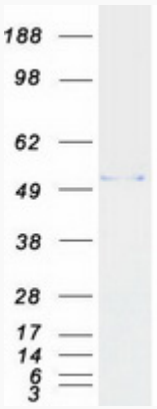
	subunit ATPase 1; proteasome 26S subunit, ATPase, 1; 26S proteasome AAA-ATPase subunit RPT2; P26S4; MGC8541; MGC24583;
Gene ID	5700
mRNA Refseq	NM_002802
Protein Refseq	NP_002793
MIM	602706
UniProt ID	P62191
SDS-PAGE	

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