

Recombinant Human Proteasome (prosome, macropain) Subunit, Beta Type, 7, His-tagged

Cat. No. PSMB7-1933H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant humanPSMB7 protein,fused to His-tag at N-terminus, was expressed in E. coli and purified by usingconventional chromatography.
Species	Human
Description	PSMB7, also known asproteasome subunit beta type-7, is a multicatalytic proteinasecomplex with a highly ordered ring-shaped 20S core structure. The corestructure is composed of 4 rings of 28 non-identical subunits; 2 rings arecomposed of 7 alpha subunits and 2 rings are composed of 7 beta subunits.Proteasomes are distributed throughout eukaryotic cells at a highconcentration and cleave peptides in an ATP/ubiquitin-dependent process in anon-lysosomal pathway. An essential function of a modified proteasome, theimmunoproteasome, is the processing of class I MHC peptides. This geneencodes a member of the proteasome B-type family, also known as the T1Bfamily that is a 20S core beta subunit in the proteasome.
Form	Liquid. 20mMTris-HCl buffer (pH8.0) containing 20% glycerol, 1mM DTT.
Molecular Weight	27.6 kDa (255aa)confirmed by MALDI-TOF
Purity	> 80%by SDS-PAGE
Concentration	0.25 mg/ml(determined by Bradford assay)

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Sequences of aminoacids	<p>MGSSHHHHHSSGLVPRGSH MTTIAGVVYK DGIVLGADTR ATEGMVVADK NCSKIHFI SP NIYCCGAGTAADTDMTTQLI SSNLELHSL S TGRLPRVVTA NRMLKQMLFR YQGYIGAALV LGGVDVTGPH LYSIYPHGSTDKLPYVTMGS GSLAAMAVFE DKFRPDMEEE EAKNLVSEAI AAGIFNDLGS GSNIDLCVIS KNKLDFLRPYTPNKKGTRL GRYRCEKGT AVLTEKITPL EIEVLEETVQ TMDTS</p>
Storage	<p>Can bestored at +4°C short term (1-2 weeks). For long term storage, aliquot andstore at -20°C or -70°C. Avoidrepeated freezing and thawing cycles.</p>
Pathways	<p>APC/C-mediated degradation of cell cycleproteins; APC/C:Cdc20 mediated degradation of Securin; APC/C:Cdc20 mediateddegradation of mitotic proteins; Adaptive Immune System; Antigenprocessing-Cross presentation; Apoptosis; Assembly of the pre-replicativecomplex; Cell Cycle Checkpoints; Cell Cycle; DNA Replication; DNA ReplicationPre-Initiation; ER-Phagosome pathway; G1/S DNA Damage Checkpoints; G1/STransition</p>
GENE INFORMATION	
Gene Name	PSMB7 proteasome (prosome,macropain) subunit, beta type, 7 [Homo sapiens]
Official Symbol	PSMB7
Synonyms	PSMB7;proteasome (prosome, macropain) subunit, beta type, 7; Z;proteasome subunit beta type-7; macropain chain Z; proteasome subunit Z;proteasome subunit alpha; proteasome subunit beta 7; proteasome catalyticsubunit 2; multicatalytic endopeptidase complex chain Z; EC 3.4.25.1
Gene ID	5695
mRNA Refseq	NM_002799

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Protein Refseq	NP_002790
MIM	604030
UniProt ID	Q6IBT1
Chromosome Location	9q34.11-q34.12
Function	peptidaseactivity ; protein binding ; threonine-type endopeptidase activity
PDBrendering based on 1iru.	

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