

Recombinant Human Proteasome (Prosome, Macropain) Subunit, Beta Type, 3, His-tagged

Cat. No. PSMB3-1540H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human PSMB3 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
Species	Human
Source	Human
Description	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
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 50% glycerol, 0.2M NaCl
Molecular Weight	25.1 kDa (225aa), confirmed by MALDI-TOF
Purity	> 90% by SDS - PAGE
Concentration	0.25 mg/ml (determined by Bradford assay)

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Sequences of amino acids	MGSSHHHHHH SSGLVPRGSH MSIMSYNGGA VMAMKGKNCV AIAADRRFGI QAQMVTTDFQ KIFPMGDRLY IGLAGLATDV QTVAQRLKFR LNLVELKEGR QIKPYTLMSM VANLLYEKRF GPYYTEPVIA GLDPKTFKPF ICSLDLIGCP MVTDDFVVSQ TCAEQMYGMC ESLWEPNMDP DHLFETISQA MLNAVDRDAV SGMGVIVHII EKDKITRTL KARMD
Storage	Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.
Pathways	APC/C-mediated degradation of cell cycle proteins; APC/C:Cdc20 mediated degradation of Securin; Adaptive Immunity Signaling; Apoptosis; Assembly of the pre-replicative complex; Autodegradation of the E3 ubiquitin ligase COP1; CDK-mediated phosphorylation and removal of Cdc6; CDT1 association with the CDC6:ORC:origin complex; Cell Cycle Checkpoints; Cell Cycle, Mitotic; Cyclin A:Cdk2-associated events at S phase entry; Cyclin E associated events during G1/S transition; Vpu mediated degradation of CD4; Vif-mediated degradation of APOBEC3G; Synthesis of DNA
GENE INFORMATION	
Gene Name	PSMB3 proteasome (prosome, macropain) subunit, beta type, 3 [Homo sapiens]
Official Symbol	PSMB3
Synonyms	PSMB3; HC10-II; MGC4147; proteasome subunit beta type-3; OTTHUMP00000164161; proteasome chain 13; proteasome theta chain; proteasome component C10-II; proteasome (prosome, macropain) subunit, beta type, 3; Proteasome chain 13; Proteasome component C10-II; Proteasome theta chain; EC 3.4.25.1

Gene ID	5691
mRNA Refseq	NM_002795
Protein Refseq	NP_002786
MIM	602176
UniProt ID	P49720
Chromosome Location	17q12
Function	peptidase activity; protein binding; threonine-type endopeptidase activity
PDBrendering based on 1iru.	