

Recombinant Human proteasome (prosome, macropain) subunit, beta type, 8, His-tagged

Cat. No. PSMB8-391H Lot. No. (See product label)

SPECIFICATION

Product Overview PSMB8, 73-276aa, Human, His tag, E.coli?

Species Human

Source E.coli

ProteinLength 73-276 a.a.

Description

PSMB8, also known as LMP7, belongs to the peptidase T1B family. The proteasome is a multicatalytic proteinase complex with a highly ordered ring-shaped 20S core structure. 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. PSMB8 is located in the class II region of the MHC (major histocompatibility complex). Replacement of PSMB5 by PSMB8 increases the capacity of the immunoproteasome to cleave model peptides after hydrophobic and basic residues. This protein acts as a major component of interferon gamma-induced sensitivity. It plays a key role in apoptosis via the degradation of the apoptotic inhibitor MCL1. Recombinant human PSMB8 protein, fused to His-tag at N-terminus, was expressed in E.coli.

Form Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 0.4M Urea, 10% glycerol

Molecular Mass 25.4 kDa (229aa)

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AA Sequence

MGSSHHHHHH SSGLVPRGSH MGSMTTTLA FKFQHGVIAA VDSRASAGSY
 ISALRVNKVI EINPYLLGTM SGCAADCQYW ERLLAKECRL YYLRNGERIS
 VSAASKLLSN MMCQYRGMGL SMGSMICGWD KKGPGLYYVD EHGTRLSGNM
 FSTGSGNTYA YGVMDSGYRP NLSPEEAYDL GRRAIAYATH RDSYSGGVVN
 MYHMKEDGWV KVESTDVSDL LHQYREANQ

Purity >85% by SDS - PAGE

Storage Can be stored at +4C short term (1-2 weeks). For long term storage, aliquot and store at -20C or -70C. Avoid repeated freezing and thawing cycles.

Concentration 0.5 mg/ml (determined by Bradford assay)

GENE INFORMATION

Gene Name PSMB8 proteasome (prosome, macropain) subunit, beta type, 8 (large multifunctional peptidase 7) [Homo sapiens]

Official Symbol PSMB8

Synonyms PSMB8; proteasome (prosome, macropain) subunit, beta type, 8 (large multifunctional peptidase 7); LMP7, proteasome (prosome, macropain) subunit, beta type, 8 (large multifunctional protease 7); proteasome subunit beta type-8; beta5i; D6S216E; PSMB5i; RING10; macropain subunit C13; proteasome subunit Y2; protease component C13; proteasome component C13; proteasome-related gene 7; proteasome subunit beta 5i; low molecular mass protein 7; low molecular weight protein 7; proteasome catalytic subunit 3i; really interesting new gene 10 protein; multicatalytic endopeptidase complex subunit C13; JMP; ALDD; LMP7; NKJO; D6S216; MGC1491;

Gene ID 5696

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mRNA Refseq	NM_004159
Protein Refseq	NP_004150
MIM	177046
UniProt ID	P28062
Chromosome Location	6p21.3
Pathway	APC/C-mediated degradation of cell cycle proteins, organism-specific biosystem; APC/C:Cdc20 mediated degradation of Securin, organism-specific biosystem; APC/C:Cdc20 mediated degradation of mitotic proteins, organism-specific biosystem; APC/C:Cdh1 mediated degradation of Cdc20 and other APC/C:Cdh1 targeted proteins in late mitosis/early G1, organism-specific biosystem; Activation of APC/C and APC/C:Cdc20 mediated degradation of mitotic proteins, organism-specific biosystem; Activation of NF-kappaB in B Cells, organism-specific biosystem; Adaptive Immune System, organism-specific biosystem;
Function	peptidase activity; threonine-type endopeptidase activity;

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