

Recombinant Human Proteasome (prosome, macropain) Subunit, Alpha Type, 5, His-tagged

Cat. No. PSMA5-1336H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human PSMA5 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
Species	Human
Source	E.coli
Description	PSMA5 (Proteasome subunit alpha type-5) belongs to the peptidase T1A family. The proteasome is a multicatalytic proteinase complex which is characterized by its ability to cleave peptides with Arg, Phe, Tyr, Leu, and Glu adjacent to the leaving group at neutral or slightly basic pH. Proteasomes are distributed throughout eukaryotic cells at a high concentration and cleave peptides in an ATP/ubiquitin-dependent process in a non-lysosomal pathway. PSMA5 has been shown to interact with PLK1. This peptidase has a very broad specificity for cleavage of peptide bonds.
Form	Liquid. In 20 mM Tris-HCl buffer (pH 8.0) containing 2 mM DTT, 10% glycerol, 100 mM NaCl.
Molecular Weight	30.5 kDa (277 aa), confirmed by MALDI-TOF
Purity	> 95 % by SDS-PAGE
Concentration	0.5 mg/ml (determined by Bradford assay)

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Sequences of amino acids	MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSMFLT RSEYDRGVNT FSPEGRLFQV EYAIEAIKLG STAIGIQTSE GVCLAVEKRI TSPLMEPSSI EKIVEIDAH I GCAMSGLIAD AKTLIDKARV ETQNHWF TYN ETMTVESVTQ AVSNLALQFG EEDADPGAMS RPFGVALLFG GVDEKGPQLF HMDPSGTFVQ CDARAIGSAS EGAQSSLQEV YHKSMTLKEA IKSSLIILKQ VMEEKLNATN IELATVQPGQ NFHMFTKEEL EEVIKDI
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; Adaptive Immunity Signaling; Apoptosis; Assembly of the pre-replicative complex; Cell Cycle Checkpoints; DNA Replication; DNA Replication Pre-Initiation; G1/S DNA Damage Checkpoints; HIV Infection; Immune System; Immunoproteasome; M/G1 Transition; Metabolism of RNA; Synthesis of DNA
GENE INFORMATION	
Gene Name	PSMA5 proteasome (prosome, macropain) subunit, alpha type, 5 [Homo sapiens]
Official Symbol	PSMA5
Synonyms	PSMA5; proteasome (prosome, macropain) subunit, alpha type, 5; PSC5; ZETA; FLJ42315; MGC117302; MGC125802; MGC125803; MGC125804; proteasome subunit alpha type-5; OTTHUMP00000013792; macropain zeta chain; proteasome zeta chain; macropain subunit zeta; proteasome component 5; proteasome subunit zeta; proteasome alpha 5 subunit; multicatalytic endopeptidase complex zeta chain; NP_001186701.1; EC 3.4.25.1
Gene ID	5686

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mRNA Refseq	NM_001199772
Protein Refseq	NP_001186701
MIM	176844
UniProt ID	P28066
Chromosome Location	1p13
Function	peptidase activity; protein binding; threonine-type endopeptidase activity
PDBrendering based on 1iru.	