

Recombinant human PSMB7 protein

Catalog Number: ATGP1426

PRODUCT INFORMATION

Expression system

E.coli

Domain

44-277aa

UniProt No.

Q99436

NCBI Accession No.

NP_002790

Alternative Names

Proteasome subunit beta type-7, Macropain chain Z, Multicatalytic endopeptidase complex chain Z, Proteasome subunit Z, Proteasome subunit beta type 7

PRODUCT SPECIFICATION

Molecular Weight

27.6 kDa (255aa) confirmed by MALDI-TOF (Molecular weight on SDS-PAGE will appear higher)

Concentration

0.25mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 20% glycerol, 1mM DTT

Purity

> 80% by SDS-PAGE

Tag

His-Tag

Application

SDS-PAGE

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

PSMB7, also known as proteasome subunit beta type-7, 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

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immunoproteasome, is the processing of class I MHC peptides. This gene encodes a member of the proteasome B-type family, also known as the T1B family that is a 20S core beta subunit in the proteasome. Expression of this catalytic subunit is downregulated by gamma interferon and proteolytic processing is required to generate a mature subunit. This subunit is not present in the immunoproteasome and is replaced by catalytic subunit 2i. Recombinant human PSMB7 protein, fused to His-tag at N-terminus, was expressed in *E. coli* and purified by using conventional chromatography.

Amino acid Sequence

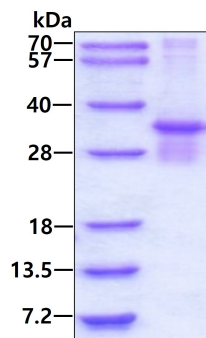
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GSLAAMAVFE DKFRPDMEEE EAKNLVSEAI AAGIFNDLGS GSNIDLCVIS KNKLDFLRPY TVPNKKGTRL GRYRCEKGTT
AVLTEKITPL EIEVLEETVQ TMDTS

General References

Wang X., et al. (2007) *Biochemistry*. 46:3553-3565
Rho J.H., et al. (2008) *J. Proteome Res.* 7:2959-2972

DATA

SDS-PAGE



3ug by SDS PAGE under reducing condition and visualized by coomassie blue stain