

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

Recombinant human PSMB7 protein

Catalog Number: ATGP1426

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

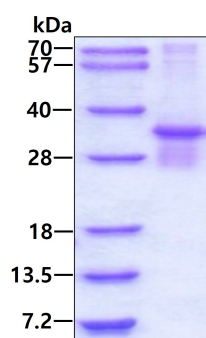
<MGSSHHHHHH SSGLVPRGSH M>TTIAGVVYK DGIVLGADTR ATEGMVVADK NCSKIHFI SP NIYCCGAGTA
ADTDMTTQLI SSNLELHSL TGR LPRVVTA NRMLKQMLFR YQGYIGAALV LGGVDVTGPH LYSIYPHGST DKLPYVTMGS
GSLAAMAVFE DKFRPDMEEE EAKNLVSEAI AAGIFNDLGS GSNIDLCVIS KNKLDFLRPY TVPNKKGTRL GRYRCEKGTT
AVLTEKITPL EIEVLEETVQ TMDTS

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