Recombinant human PA28 gamma/PSME3 protein

Catalog Number: ATGP1302

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-254aa

UniProt No.
P61289

NCBI Accession No.
NP_005780.2

Alternative Names
Proteasome activator subunit 3, 11S regulator complex subunit gamma, REG-gamma, Activator of multicatalytic protease subunit 3, Ki nuclear autoantigen, Proteasome activator 28 subunit gamma, PA28g, PA28gamma, Ki

PRODUCT SPECIFICATION

Molecular Weight
31.7 kDa (274aa) confirmed by MALDI-TOF

Concentration
0.5mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 2mM DTT, 40% glycerol, 200mM NaCl

Purity
> 90% 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
PSME3 (Proteasome activator complex subunit 3) belongs to the PA28 family. The 26S proteasome is a multicatalytic proteinase complex with a highly ordered structure composed of 2 complexes, a 20S core and a 19S regulator. Proteasomes are distributed throughout eukaryotic cells at a high concentration and cleave peptides in an ATP/ubiquitin-dependent process in a non-lysosomal pathway. PSME3 activates the trypsin-like catalytic subunit of the proteasome but inhibits the chymotrypsin-like and postglutamyl-preferring (PGPH)

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subunits. PSEM3 facilitates the MDM2-p53/TP53 interaction which promotes ubiquitination- and MDM2-dependent proteasomal degradation of p53/TP53, limiting its accumulation and resulting in inhibited apoptosis after DNA damage. Recombinant human PSME3 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

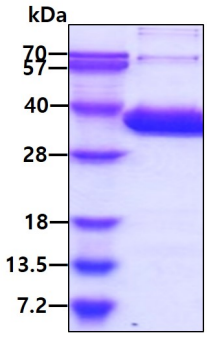
<MGSSHHHHHH SSGLVPRGSH> MASLLKVDQE VKLKVDSFRE RITSEAEDLV ANFFPKKLLE LDSFLKEPIL NIHDLTQIHS DMNLPVPDPI LLTNSHDGLD GPTYKKRRLD ECEEAFQGTK VFVMPNGMLK SNQQLVDIIE KVKPEIRLLI EKCNTVKMWV QLLIPRIEDG NNFGVSIQEE TVAELRTVES EAASYLDQIS RYYITRAKLV SKIAKYPHVE DYRRTVTEID EKEYISLRLI ISELRNQYVT LHDMILKNIE KIKRPRSSNA ETLY

General References

Wilk S., et al. (2000) Arch. Biochem. Biophys. 383:265-271
Zhang Z., et al. (2008) EMBO J. 27:852-864

DATA

SDS-PAGE



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