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## PSMD10 Protein (AA 1-226) (His tag)



#### **Image**



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Quantity:	1 mg
Target:	PSMD10
Protein Characteristics:	AA 1-226
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PSMD10 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)
Product Details	

Product Details	
Sequence:	MEGCVSNLMV CNLAYSGKLE ELKESILADK SLATRTDQDS RTALHWACSA GHTEIVEFLL
	QLGVPVNDKD DAGWSPLHIA ASAGRDEIVK ALLGKGAQVN AVNQNGCTPL HYAASKNRHE
	IAVMLLEGGA NPDAKDHYEA TAMHRAAAKG NLKMIHILLY YKASTNIQDT EGNTPLHLAC
	DEERVEEAKL LVSQGASIYI ENKEEKTPLQ VAKGGLGLIL KRMVEG
	Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a
	special request, please contact us.
Characteristics:	Made in Germany - from design to production - by highly experienced protein experts.
	Human PSMD10 Protein (raised in Insect Cells) purified by multi-step, protein-specific
	process to ensure crystallization grade.
	State-of-the-art algorithm used for plasmid design (Gene synthesis).

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experts in the lab will ensure that you receive a correctly folded protein.

This protein is a made to order protein and will be made for the first time for your order. Our

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receival of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered. The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

#### Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

- 1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.
- 2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

Purity:

>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Sterility:

0.22 µm filtered

Endotoxin Level:

Protein is endotoxin free.

specific reference buffer.

Grade:

Crystallography grade

#### Target Details

Target:	PSMD10
Alternative Name:	PSMD10 (PSMD10 Products)
Background:	Acts as a chaperone during the assembly of the 26S proteasome, specifically of the PA700/19S
	regulatory complex (RC). In the initial step of the base subcomplex assembly is part of an
	intermediate PSMD10:PSMC4:PSMC5:PAAF1 module which probably assembles with a

PSMD5:PSMC2:PSMC1:PSMD2 module. Independently of the proteasome, regulates EGF-
induced AKT activation through inhibition of the RHOA/ROCK/PTEN pahway, leading to
prolonged AKT activation. Plays an important role in RAS-induced tumorigenesis., Acts as an
proto-oncoprotein by being involved in negative regulation of tumor suppressors RB1 and
p53/TP53. Overexpression is leading to phosphorylation of RB1 and proteasomal degradation
of RB1. Regulates CDK4-mediated phosphorylation of RB1 by competing with CDKN2A for
binding with CDK4. Facilitates binding of MDM2 to p53/TP53 and the mono- and
polyubiquitination of p53/TP53 by MDM2 suggesting a function in targeting the TP53:MDM2
complex to the 26S proteasome. Involved in p53-independent apoptosis. Involved in regulation
of NF-kappa-B by retaining it in the cytoplasm. Binds to the NF-kappa-B component RELA and
accelerates its XP01/CRM1-mediated nuclear export.

Molecular Weight:	25.4 kDa Including tag.
UniProt:	075832
Pathways:	Mitotic G1-G1/S Phases, DNA Replication, Maintenance of Protein Location, Synthesis of DNA,
	Ubiquitin Proteasome Pathway

## **Application Details**

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a gurantee though.
Comment:	In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you

receive your protein of interest.

Restrictions: For Research Use only

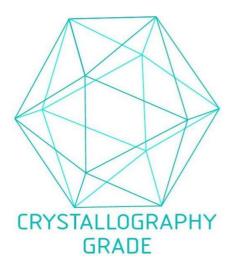
### Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.

Expiry Date:

Unlimited (if stored properly)

**Images** 



**Image 1.** "Crystallography Grade" protein due to multi-step, protein-specific purification process