

Datasheet for ABIN3137648

## PSMD10 Protein (AA 1-231) (Strep Tag)



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### Overview

Quantity:	1 mg
Target:	PSMD10
Protein Characteristics:	AA 1-231
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PSMD10 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

### Product Details

Brand:	ALiCE®
Sequence:	<p>MEGCVSNIMI CNLAYSGKLD ELKERILADK SLATRTDQDS RTALHWACSA GHTEIVEFLL            QLGVPVNDKD DAGWSPLHIA ASAGRDEIVK ALLVKGAVHN AVNQNGCTPL HYAASKNRHE            IAVMLLEGGA NPDAKDHYDA TAMHRAAAKG NLKMHVHILLF YKASTNIQDT EGNTPLHLAC            DEERVEEAKF LVTQGASIYI ENKEEKTPLQ VAKGGLGLIL KRLAESEEEAS M</p> <p><b>Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.</b></p>
Characteristics:	<p>Key Benefits:</p> <ul style="list-style-type: none"> <li>• Made in Germany - from design to production - by highly experienced protein experts.</li> <li>• Protein expressed with ALiCE® and purified in one-step affinity chromatography</li> <li>• These proteins are normally active (enzymatically functional) as our customers have</li> </ul>

reported (not tested by us and not guaranteed).

- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a **made-to-order protein** and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

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.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

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Target:	PSMD10
Alternative Name:	Psm10 ( <a href="#">PSMD10 Products</a> )
Background:	26S proteasome non-ATPase regulatory subunit 10 (26S proteasome regulatory subunit p28)

## Target Details

(Gankyrin),FUNCTION: 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 (By similarity). Independently of the proteasome, regulates EGF-induced AKT activation through inhibition of the RHOA/ROCK/PTEN pathway, leading to prolonged AKT activation. Plays an important role in RAS-induced tumorigenesis. {ECO:0000250, ECO:0000269|PubMed:20628200}., FUNCTION: Acts as an 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 XPO1/CRM1-mediated nuclear export (By similarity). {ECO:0000250}.

Molecular Weight: 25.1 kDa

UniProt: [Q9Z2X2](#)

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 guarantee though.

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Application Details

Restrictions: For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol <b>Might differ depending on protein.</b>
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months