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Datasheet for ABIN3086830

## PWWP2B Protein (AA 1-590) (Strep Tag)

### Overview

Quantity:	1 mg
Target:	PWWP2B
Protein Characteristics:	AA 1-590
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PWWP2B protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

### Product Details

Sequence: MEPRAGCRLP VRVEQVVNGA LVVTVSCGER SFAGILLDCT KKSGLFGLPP LAPLPQVDES  
 PVND SHGRAP EEGDAEVMQL GSSSPPPARG VQPPETTRPE PPPPLVPPLP AGSLPPYPPY  
 FEGAPFPHPL WLRD TYKLWV PQPPPTIKR TRRLSRNRD PGRLLSTIR LRPRQVLCEK  
 CKSTLSPEA SPGPPAAPRA RRRLGSGPDR ELRKPEEPEN GEPTAAATAR RSKRERREED  
 RAPAEQVPRS PVIKISYSTP QGKGEVVKIP SRVHGSLEPF RPQQAPQDDG SQDPEVL DRE  
 SRDRPSCAPS ASIPKLKLTR PVPAGADLPP PKIRLKP HRL GDSEHEPVYR AELVGELNGY  
 LRDSSPAPCA DGPAGGLADL SSGSSGEDDD FKSCPQGPQG REGLAFLVSC PEGRADCASE  
 SACSSDSLDE ARSSGSEGTP ADTGDLSPGH GASAPSVSRE ARQTVPLTV RLHTQSVSEC  
 ITEDGRTVAV GDIWVGKIHG FPWWPARVLD ISLGQKEDGE PSWREAKVSW FGSPTTSFSL  
 ISKLSPFSEF FKLRFNRRKKK GMYRKAITEA ANAARHVAPE IRELLTQFET

**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.**

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### Characteristics:

#### Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have 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 will ensure that you receive a correctly folded 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 in several dilutions and is measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

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### Purification:

Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):

1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE.

## Product Details

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:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

## Target Details

Target:	PWWP2B
Alternative Name:	PWWP2B ( <a href="#">PWWP2B Products</a> )
Background:	<p>PWWP domain-containing protein 2B,FUNCTION: Chromatin-binding protein that acts as an adapter between distinct nucleosome components (H3K36me3 or H2A.Z) and chromatin-modifying complexes, contributing to the regulation of the levels of histone acetylation at actively transcribed genes (PubMed:30228260). Competes with CHD4 and MBD3 for interaction with MTA1 to form a NuRD subcomplex, preventing the formation of full NuRD complex (containing CHD4 and MBD3), leading to recruitment of HDACs to gene promoters resulting in turn in the deacetylation of nearby H3K27 and H2A.Z (PubMed:30228260). Plays a role in facilitating transcriptional elongation through regulation of histone acetylation (By similarity). Negatively regulates brown adipocyte thermogenesis by interacting with and stabilizing HDAC1 at the UCP1 gene promoter, thereby promoting histone deacetylation at the promoter leading to the repression of UCP1 expression (By similarity). {ECO:0000250 UniProtKB:Q69Z61, ECO:0000269 PubMed:30228260}.</p>
Molecular Weight:	64.0 kDa
UniProt:	<a href="#">Q6NUJ5</a>

## 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.
Comment:	ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> 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

Application Details

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!

Restrictions: For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)