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Datasheet for ABIN3086777

PWWP2A Protein (AA 1-755) (Strep Tag)

1 Image

Overview

Quantity:	1 mg
Target:	PWWP2A
Protein Characteristics:	AA 1-755
Origin:	Human
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PWWP2A protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence: MAAVAEEAAA TAASPGEGGA GEAPEMEPI PGSEAGTDPL PVTATEASVP DGETDGQQSA
 PQADEPPLPP PPPPPGELAR SPEAVGPELE AEEKLSVRVA ESAAAAPQGG PELPPSPASP
 PEQPAPAPER EEPPLPQVA PALVPPAGGD STVSQLIPGS EVRVTLDHII EDALVVSFRF
 GEKLFSGVLM DLSKRFGPHG IPVTVFPKRE YKDKPEAMPL QSNTFQEGTE VKCEANGAVP
 DDPSPVPHPE LSLAESLWTS KPPPLFHEGA PYPPPLFIRD TYNQSIPQPP PRKIKRPKRK
 MYREPTSIM NAIKLRPRQV LCDKCKNSVV AEKKEIRKGS SATDSSKYED KKRRNESVTT
 VNKKLKTCHK VDGKNQNESQ KRNAVVKVSN IAHSRGRVVK VSAQANTSKA QLSTKKVLQS
 KNMDHAKARE VLKIAKEKAQ KKQNETSTSK NAHRSKVFHTR RYQNPSSGSL PPRVRLKPQR
 YRNEENDSSL KTGLEKMRSG KMAPKQSRC TSTRSAGEAP SENQSPSKGP EEASSEVQDT
 NEVHVPGDQD EPQTLGKKGK KNNISVYMTL NQKKS DSSSA SVCSIDSTDD LKSSNSECSS
 SESFDPPPGS MHAPSTSSTS SSSKEEKKLS NSLKMKVFSK NVSKCVTPDG RTICVGDIVW
 AKIYGFPWWP ARILTITVSR KDNGLLVRQE ARISWFGSPT TSFLALSQLS PFLNFQSRF

NKKRKGLYRK AITEAKAAK QLTPEVRALL TQFET

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.

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.

Purification:

Two step purification of proteins expressed in Almost Living Cell-Free Expression System

Product Details

(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.
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: PWWP2A

Alternative Name: PWWP2A ([PWWP2A Products](#))

Background: PWWP domain-containing protein 2A,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, PubMed:30327463). 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, PubMed:30327463). Plays a role in facilitating transcriptional elongation and repression of spurious transcription initiation through regulation of histone acetylation (By similarity). Essential for proper mitosis progression (PubMed:28645917).
{ECO:0000250|UniProtKB:Q69Z61, ECO:0000269|PubMed:28645917, ECO:0000269|PubMed:30228260, ECO:0000269|PubMed:30327463}.

Molecular Weight: 82.0 kDa

UniProt: [Q96N64](#)

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.

Application Details

Comment:	<p>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 modifications.</p> <p>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!</p>
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)

Images



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process