



[Go to Product page](#)

Datasheet for ABIN3096371

WIPI2 Protein (AA 1-454) (Strep Tag)

1 Image

Overview

Quantity:	1 mg
Target:	WIPI2
Protein Characteristics:	AA 1-454
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This WIPI2 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence: MNLASQSGEA GAGQLLFANF NQDNTEVKGA SRAAGLRRA VVWSLAVGSK SGYKFFSLSS
VDKLEQIYEC TDTEDVCIVE RLFSSSLVAI VSLKAPRKLK VCHFCKGTEI CNYSYSNTIL
AVKLNQRQLI VCLEESLYIH NIRDMKVLHT IRETPNPAG LCALSINNDN CYLAYPGSAT
IGEYQVFDTI NLRAANMIPA HDSPLAALAF DASGTKLATA SEKGTVIRVF SIPEGQKLFE
FRRGVKRCVS ICSLAFSMDG MFLSASSNTE TVHIFKLETV KEKPPEPTT WTGYFGKVLN
ASTSYLPSQV TEMFNQGRAF ATVRLPFCGH KNICSLATIQ KIPRLLVGAA DGYLYMYNLD
PQEGGECALM KQHRLDGSLE TTNEILDSAS HDCPLVTQTY GAAAGKGTIV PSSPTRLAYT
DDLGA VGGAC LEDEASALRL DEDSEHPPMI LRTD

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 Exspasy'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 (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.

Product Details

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:	WIPI2
Alternative Name:	WIPI2 (WIPI2 Products)
Background:	<p>WD repeat domain phosphoinositide-interacting protein 2 (WIPI-2) (WIPI49-like protein 2),FUNCTION: Component of the autophagy machinery that controls the major intracellular degradation process by which cytoplasmic materials are packaged into autophagosomes and delivered to lysosomes for degradation (PubMed:20505359, PubMed:28561066). Involved in an early step of the formation of preautophagosomal structures (PubMed:20505359, PubMed:28561066). Binds and is activated by phosphatidylinositol 3-phosphate (PtdIns3P) forming on membranes of the endoplasmic reticulum upon activation of the upstream ULK1 and PI3 kinases (PubMed:28561066). Mediates ER-isolation membranes contacts by interacting with the ULK1:RB1CC1 complex and PtdIns3P (PubMed:28890335). Once activated, WIPI2 recruits at phagophore assembly sites the ATG12-ATG5-ATG16L1 complex that directly controls the elongation of the nascent autophagosomal membrane (PubMed:20505359, PubMed:28561066). {ECO:0000269 PubMed:20505359, ECO:0000269 PubMed:28561066, ECO:0000269 PubMed:28890335, ECO:0000269 PubMed:30968111}., FUNCTION: [Isoform 4]: Recruits the ATG12-ATG5-ATG16L1 complex to omegasomes and preautophagosomal structures, resulting in ATG8 family proteins lipidation and starvation-induced autophagy. Isoform 4 is also required for autophagic clearance of pathogenic bacteria. Isoform 4 binds the membrane surrounding Salmonella and recruits the ATG12-5-16L1 complex, initiating LC3 conjugation, autophagosomal membrane formation, and engulfment of Salmonella. {ECO:0000269 PubMed:24954904}.</p>

Molecular Weight:	49.4 kDa
-------------------	----------

UniProt:	Q9Y4P8
----------	------------------------

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