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Datasheet for ABIN3096349

WAC Protein (AA 1-647) (Strep Tag)

1 Image

Overview

| | |
|-------------------------------|--|
| Quantity: | 1 mg |
| Target: | WAC |
| Protein Characteristics: | AA 1-647 |
| Origin: | Human |
| Source: | Tobacco (<i>Nicotiana tabacum</i>) |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This WAC protein is labelled with Strep Tag. |
| Application: | ELISA, Western Blotting (WB), SDS-PAGE (SDS) |

Product Details

Sequence: MVMYARKQQR LSDGCHDRRG DSQPYQALKY SSKSHPSSGD HRHEKMRDAG DPSPPNKMLR
RSDSPENKYS DSTGHSKAKN VHTHRVRERD GGTSYSPQEN SHNHSALHSS NSHSSNPSNN
PSKTSAPYD SADDWSEHIS SSGKKYYYNC RTEVSQWEKP KEWLEREQRQ KEANKMAVNS
FPKDRDYRRE VMQATATSGF ASGMEDKHSS DASSLLPQNI LSQTSRHNDR DYRLPRAETH
SSSTPVQHPI KPVVHPTATP STVPSSPFTL QSDHQPCKSF DANGASTLSK LPTPTSSVPA
QKTERKESTS GDKPVSHSCT TPSTSSASGL NPTSAPPTSA SAVPVSPVPQ SPIPPLLQDP
NLLRQLLPAL QATLQLNNSN VDISKINEVL TAAVTQASLQ SIIHKFLTAG PSAFNITSLI
SQAAQLSTQA QPSNQSPMSL TSDASSPRSY VSPRISTPQT NTVPIKPLIS TPPVSSQPKV
STPVVKQGPV SQSATQQPVT ADKQQGHEPV SPRSLQRSSS QRSPSPGNH TSNSSNASNA
TVVPQNSSAR STCSLTPALA AHFSENLKH VQGWPADHAE KQASRLREEA HNMGTIHMSE
ICTELKNLRS LVRVCEIQAT LREQRILFLR QQIKELEKLEK NQNSFMV

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 (ALiCE®):

1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag
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Product Details

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: WAC

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

Background: WW domain-containing adapter protein with coiled-coil,FUNCTION: Acts as a linker between gene transcription and histone H2B monoubiquitination at 'Lys-120' (H2BK120ub1) (PubMed:21329877). Interacts with the RNA polymerase II transcriptional machinery via its WW domain and with RNF20-RNF40 via its coiled coil region, thereby linking and regulating H2BK120ub1 and gene transcription (PubMed:21329877). Regulates the cell-cycle checkpoint activation in response to DNA damage (PubMed:21329877). Positive regulator of amino acid starvation-induced autophagy (PubMed:22354037). Also acts as a negative regulator of basal autophagy (PubMed:26812014). Positively regulates MTOR activity by promoting, in an energy-dependent manner, the assembly of the TTT complex composed of TEO2, TTI1 and TTI2 and the RUVBL complex composed of RUVBL1 and RUVBL2 into the TTT-RUVBL complex. This leads to the dimerization of the mTORC1 complex and its subsequent activation (PubMed:26812014). May negatively regulate the ubiquitin proteasome pathway (PubMed:21329877). {ECO:0000269|PubMed:21329877, ECO:0000269|PubMed:22354037, ECO:0000269|PubMed:26812014}.

Molecular Weight: 70.7 kDa

UniProt: [Q9BTA9](#)

Pathways: [Chromatin Binding](#)

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

Application Details

guarantee though.

Comment: 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!

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)



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