

## Datasheet for ABIN3092548 FBXW7 Protein (AA 1-707) (Strep Tag)



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### 1 Image

#### Overview

Quantity:	1 mg
Target:	FBXW7
Protein Characteristics:	AA 1-707
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This FBXW7 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

#### Product Details

Sequence:	<p>                     MNQELLSVGS KRRRTGGSLR GNPSSSQVDE EQMNRVVEEE QQQQLRQQEE EHTARNGEVV                      GVEPRPGGQN DSQQGQLEEN NNRFISVDED SSGNQEEQEE DEEHAGEQDE EDEEEEEMDQ                      ESDDFDQSDD SSREDEHTHT NSVTNSSSIV DLPVHQLSSP FYTKTTKMKR KLDHGSEVRS                      FSLGKKPCKV SEYTSTTGLV PCSATPTTFG DLRAANGQGQ QRRRITSVQP PTGLQEWLKM                      FQSWGPEKL LALDELIDSC EPTQVKHMMQ VIEPQFQRDF ISLLPKELAL YVLSFLEPKD                      LLQAAQTCRY WRILAEDNLL WREKCKEEGI DEPLHIKRRK VIKPGFIHSP WKSAYIRQHR                      IDTNWRRGEL KSPKVLKGHD DHVITCLQFC GNRIVSGSDD NTLKVWSAVT GKCLRTLUGH                      TGGVWSSQMR DNIISGSTD RTLKVWNAET GECIHTLYGH TSTVRCMHLH EKRVSQSRD                      ATLRVWDIET GQCLHVLMDH VAAVRCVQYD GRRVVSQAYD FMVKVWDPET ETCLHTLQGH                      TNRVYSLQFD GIHVVSQSLD TSIRVWDVET GNCIHTLTGH QSLTSGMELK DNILVSGNAD                      STVKIWDIKT GQCLQTLQGP NKHQSAVTCL QFNKNFVITS SDDGTVKLWD LKTGEFIRNL                      VTLESGGSGG VVWRIRASNT KLVCAVGSRN GTEETKLLVL DFDVDMK                 </p>
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**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.

### Purification:

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

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## Product Details

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: FBXW7

Alternative Name: FBXW7 ([FBXW7 Products](#))

Background: F-box/WD repeat-containing protein 7 (Archipelago homolog) (hAgo) (F-box and WD-40 domain-containing protein 7) (F-box protein FBX30) (SEL-10) (hCdc4),FUNCTION: Substrate recognition component of a SCF (SKP1-CUL1-F-box protein) E3 ubiquitin-protein ligase complex which mediates the ubiquitination and subsequent proteasomal degradation of target proteins (PubMed:22748924, PubMed:34741373, PubMed:17434132, PubMed:26976582, PubMed:28727686, PubMed:35395208). Recognizes and binds phosphorylated sites/phosphodegrons within target proteins and thereafter brings them to the SCF complex for ubiquitination (PubMed:22748924, PubMed:34741373, PubMed:26774286, PubMed:17434132, PubMed:26976582, PubMed:28727686). Identified substrates include cyclin-E (CCNE1 or CCNE2), DISC1, JUN, MYC, NOTCH1 released notch intracellular domain (NICD), NFE2L1, NOTCH2, MCL1, MLST8, RICTOR, and probably PSEN1 (PubMed:11565034, PubMed:12354302, PubMed:11585921, PubMed:15103331, PubMed:14739463, PubMed:17558397, PubMed:17873522, PubMed:22608923, PubMed:22748924, PubMed:29149593, PubMed:25775507, PubMed:28007894, PubMed:26976582, PubMed:28727686, PubMed:25897075, PubMed:34102342). Acts as a negative regulator of JNK signaling by binding to phosphorylated JUN and promoting its ubiquitination and subsequent degradation (PubMed:14739463). Involved in bone homeostasis and negative regulation of osteoclast differentiation (PubMed:29149593). Regulates the amplitude of the cyclic expression of hepatic core clock genes and genes involved in lipid and glucose metabolism via ubiquitination and proteasomal degradation of their transcriptional repressor NR1D1, CDK1-dependent phosphorylation of NR1D1 is necessary for SCF(FBXW7)-mediated ubiquitination (PubMed:27238018). Also able to promote 'Lys-63'-linked ubiquitination in response to DNA

## Target Details

damage (PubMed:26774286). The SCF(FBXW7) complex facilitates double-strand break repair following phosphorylation by ATM: phosphorylation promotes localization to sites of double-strand breaks and 'Lys-63'-linked ubiquitination of phosphorylated XRCC4, enhancing DNA non-homologous end joining (PubMed:26774286). {ECO:0000269|PubMed:11565034, ECO:0000269|PubMed:11585921, ECO:0000269|PubMed:14739463, ECO:0000269|PubMed:15103331, ECO:0000269|PubMed:17434132, ECO:0000269|PubMed:17558397, ECO:0000269|PubMed:17873522, ECO:0000269|PubMed:22608923, ECO:0000269|PubMed:22748924, ECO:0000269|PubMed:25775507, ECO:0000269|PubMed:25897075, ECO:0000269|PubMed:26774286, ECO:0000269|PubMed:26976582, ECO:0000269|PubMed:27238018, ECO:0000269|PubMed:28007894, ECO:0000269|PubMed:28727686, ECO:0000269|PubMed:29149593, ECO:0000269|PubMed:34102342, ECO:0000269|PubMed:34741373, ECO:0000269|PubMed:35395208, ECO:0000305|PubMed:12354302}.

Molecular Weight: 79.7 kDa

UniProt: [Q969H0](#)

Pathways: [Notch Signaling](#), [EGFR Signaling 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.

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.

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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