

Datasheet for ABIN3078692

**DDB1 and CUL4 Associated Factor 15 (DCAF15) (AA 1-600) protein (Strep Tag)**



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1 Image

Overview

Quantity:	1 mg
Target:	DDB1 and CUL4 Associated Factor 15 (DCAF15)
Protein Characteristics:	AA 1-600
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	Strep Tag
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	<p>MAPSSKSERN SGAGSGGGGP GGAGGKRAAG RRREHVLKQL ERVKISGQLS PRLFRKLPPR</p> <p>VCVSLKNIVD EDFLYAGHIF LGFSKCGRYV LSYTSSSGDD DFSFYIYHLY WWEFNVHSKL</p> <p>KLVRQVRLFQ DEEISDLYL TVCEWPSDAS KVIVFGFNTR SANGMLNMNM MMSDENHRDI</p> <p>YVSTVAVPPP GRCAACQDAS RAHPGDPNAQ CLRHGFMLHT KYQVVYPFPT FQPAFQLKKD</p> <p>QVLLNTSYS LVACAVSVHS AGDRSFCQIL YDHSTCPLAP ASPPEPQSPE LPPALPSFCP</p> <p>EAAPARSSGS PEPSPAIAKA KEFVADIFRR AKEAKGGVPE EARPALCPGP SGSRCAHSE</p> <p>PLALCGETAP RDSPASEAP ASEPgyvNYT KLYYVLESge GTEPEDELED DKISLPFVVT</p> <p>DLRGRNLRPM RERTAVQGQY LTVEQLTLDF EYVINEVIRH DATWGHQFCS FSDYDIVILE</p> <p>VCPETNQVLI NIGLLLLAFP SPTEEGQLRP KTYHTSLKVA WDLNTGIFET VSGDLTEVK</p> <p>GQTSGSVWSS YRKSCVDMVM KWLVPESsGR YVNRMTNEAL HKGCSLKVLA DSERYTWIVL</p> <p><b>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</b></p>
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**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:	DDB1 and CUL4 Associated Factor 15 (DCAF15)
Alternative Name:	DCAF15 ( <a href="#">DCAF15 Products</a> )
Background:	<p>DDB1- and CUL4-associated factor 15,FUNCTION: Substrate-recognition component of the DCX(DCAF15) complex, a cullin-4-RING E3 ubiquitin-protein ligase complex that mediates ubiquitination and degradation of target proteins (PubMed:16949367, PubMed:31452512). The DCX(DCAF15) complex acts as a regulator of the natural killer (NK) cells effector functions, possibly by mediating ubiquitination and degradation of cohesin subunits SMC1A and SMC3 (PubMed:31452512). May play a role in the activation of antigen-presenting cells (APC) and their interaction with NK cells (PubMed:31452512). {ECO:0000269 PubMed:16949367, ECO:0000269 PubMed:31452512}., FUNCTION: Binding of aryl sulfonamide anticancer drugs, such as indisulam (E7070) or E7820, change the substrate specificity of the DCX(DCAF15) complex, leading to promote ubiquitination and degradation of splicing factor RBM39 (PubMed:28437394, PubMed:28302793, PubMed:31693891, PubMed:31452512). RBM39 degradation results in splicing defects and death in cancer cell lines (PubMed:28437394, PubMed:28302793, PubMed:31693891). Aryl sulfonamide anticancer drugs change the substrate specificity of DCAF15 by acting as a molecular glue that promotes binding between DCAF15 and weak affinity interactor RBM39 (PubMed:31686031, PubMed:31819272). Aryl sulfonamide anticancer drugs also promote ubiquitination and degradation of RBM23 and PRPF39 (PubMed:31693891, PubMed:31626998, PubMed:31686031). {ECO:0000269 PubMed:28302793, ECO:0000269 PubMed:28437394, ECO:0000269 PubMed:31452512, ECO:0000269 PubMed:31626998, ECO:0000269 PubMed:31686031, ECO:0000269 PubMed:31693891, ECO:0000269 PubMed:31819272}.</p>
Molecular Weight:	66.5 kDa
UniProt:	<a href="#">Q66K64</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.
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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>
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Restrictions:	For Research Use only
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## 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