

Datasheet for ABIN3092069  
**DDX42 Protein (AA 1-938) (Strep Tag)**



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## Overview

Quantity:	250 µg
Target:	DDX42
Protein Characteristics:	AA 1-938
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This DDX42 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

## Product Details

Brand:	AliCE®
Sequence:	<p>MNWNKGGPGT KRGFGGGFA ISAGKKEEPK LPQQSHSAFG ATSSSSGFGK SAPPQLPSFY  KIGSKRANFD EENAYFEDEE EDSSNVDLPY IPAENSPTRQ QFHSPVSD SDDDPLEAFM  AEVEDQAARD MKRLEEKDKE RKNVKGIRDD IEEEDDQEAY FRYMAENPTA GVVQEEEEEDN  LEYDSDGNPI APTKKIIDPL PPIDHSEIDY PPFKKNFYNE HEEITNLTPQ QLIDLRHKLN  LRVSGAAPPR PGSSFAHFGF DEQLMHQIRK SEYTQPTPIQ CQGVVALSG RDMIGIAKTG  SGKTAAFIWP MLIHIMDQKE LEPGDGPIAV IVCPRELQ CQHAECKRFG KAYNLRVAV  YGGGSMWEQA KALQEGAEIV VCTPGLIDH VKKKATNLQR VSYLVFDEAD RMFDMGFEYQ  VRSIASHVRP DRQTLIFSAT FRKKIEKLAR DILIDPIRVV QGDIGEANED VTQIVEILHS  GPSKWNWLTR RLVEFTSSGS VLLFVTKKAN AEELANNLKQ EGHNLGLLHG DMDQSERNKV  ISDFKKKDIP VLVATDVAAR GLDIPSITV INYDVARDID THTHRIGRTG RAGEKGVAYT  LLTPKDSNFA GDLVRNLEGA NQHVSKELLD LAMQNAWFRK SRFKGGKGGK LNIGGGGLGY</p>

RERPGLGSEN MDRGNNNVMS NYEAYKPSTG AMGDRLTAMK AAFQSQYKSH FVAASLSNQK  
AGSSAAGASG WTSAGSLNSV PTNSAQQGHN SPDSPVTSAA KGIPGFGNTG NISGAPVTYP  
SAGAQQVNNT ASGNNNSREGT GGSNGKRERY TENRGSSRHS HGETGNRHSD SPRHGDGGRH  
GDGYRHPESS SRHTDGHHRHG ENRHGGSAGR HGENRGANDG RNGESRKEAF NRESKMEPKM  
EPKVDSSKMD KVDSKTDKTA DGFAVPEPPK RKKSrwDS

**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 in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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 against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

## Product Details

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Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

## Target Details

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Target:	DDX42
Alternative Name:	DDX42 ( <a href="#">DDX42 Products</a> )
Background:	<p>ATP-dependent RNA helicase DDX42 (EC 3.6.4.13) (DEAD box protein 42) (RNA helicase-like protein) (RHELP) (RNA helicase-related protein) (RNAHP) (SF3b DEAD box protein) (Splicing factor 3B-associated 125 kDa protein) (SF3b125),FUNCTION: ATP-dependent RNA helicase that binds to partially double-stranded RNAs (dsRNAs) in order to unwind RNA secondary structures (PubMed:16397294). Unwinding is promoted in the presence of single-strand binding proteins (PubMed:16397294). Mediates also RNA duplex formation thereby displacing the single-strand RNA binding protein (PubMed:16397294). ATP and ADP modulate its activity: ATP binding and hydrolysis by DDX42 triggers RNA strand separation, whereas the ADP-bound form of the protein triggers annealing of complementary RNA strands (PubMed:16397294). Required for assembly of the 17S U2 SnRNP complex of the spliceosome, a large ribonucleoprotein complex that removes introns from transcribed pre-mRNAs: DDX42 associates transiently with the SF3B subcomplex of the 17S U2 SnRNP complex and is released after fulfilling its role in the assembly of 17S U2 SnRNP (PubMed:12234937, PubMed:36797247). Involved in the survival of cells by interacting with TP53BP2 and thereby counteracting the apoptosis-stimulating activity of TP53BP2 (PubMed:19377511). Relocalizes TP53BP2 to the cytoplasm (PubMed:19377511). {ECO:0000269 PubMed:12234937, ECO:0000269 PubMed:16397294, ECO:0000269 PubMed:19377511, ECO:0000269 PubMed:36797247}.</p>

Molecular Weight:	103.0 kDa
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UniProt:	<a href="#">Q86XP3</a>
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## Application Details

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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
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## Application Details

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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

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Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer.  
Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: 12 months