

Datasheet for ABIN3093044

**EIF5B Protein (AA 1-1220) (Strep Tag)**[Go to Product page](#)**1** Image

## Overview

Quantity:	1 mg
Target:	EIF5B
Protein Characteristics:	AA 1-1220
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This EIF5B protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

## Product Details

Sequence:	MGKKQKNKSE DSTKDDIDLD ALAAIEGAG AAKEQEPQKS KGKKKKEKKK QDFDEDDILK ELEELSLEAQ GIKADRETVV VKPTENNEEE FTSKDKKKKG QKGKKQSFDD NDSEELEDKD SKSKKTAKPK VEMYSGSDDD DDFNKLPPKA KGKAQKSNKK WDGSEEDEN SKKIKERSRI NSSGESGDES DEFLQSRKGQ KKNQKNKPGP NIESGNEDDD ASFKIKTVAQ KKAEEKKERER KKRDEEKAKL RKLKEKEELE TGKKDQSKQK ESQRKFEEET VKSKVTVDTG VIPASEEKAE TPTAAEDDNE GDKKKKDKKK KKGEKEEKEK EKKKGPSKAT VKAMQEALAK LKEEEERQKR EEEEIRKLE ELEAKRKEEE RLEQEKRERK KQKEKERKER LKKEGKLLTK SQREARARAE ATLKLLQAQG VEVPSKDSLP KKRPIYEDKK RKKIPQQLS KEVSESMELC AAEVMEQGV PEKEETPPPVEPEEEEDTED AGLDDWEAMA SDEETEKVEG NKVHIEVKEN PEEEEEEEE EEEEEESEEE EEEEESEGS EGDEEDEKVS DEKDSGKTLDD KKPSKEMSSD SEYDSDDDR KEERAYDKAK RRIEKRRLH SKNVNTEKLR APIICVLGHV DTGKTKILDK LRHTHVQDGE AGGITQQIGA TNVPLEAINE QTKMIKNFDR ENVRIPGMLI IDTPGHESFS NLRNRGSSLC
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DIALVVDIM HGLEPQTIES INLLKSKKCP FIVALNKIDR LYDWKKSPDS DVAATLKKQK  
KNTKDEFEER AKAIIVEFAQ QGLNAAFYE NKDPRTFVSL VPTSAHTGDG MGSLIYLLVE  
LTQTMLSKRL AHCEELRAQV MEVKALPGMG TTIDVILING RLKEGDTIIV PGVEGPIVTQ  
IRGLLLPPPM KELRVKNQYE KHKEVEAAQG VKILGKDLEK TLAGLPLLVA YKEDEIPVLK  
DELIHELKQT LNAIKLEEKV VYVQASTLGS LEALLEFLKT SEVPYAGINI GPVHKKDVMK  
ASVMLEHDPQ YAVILAFDVR IERDAQEMAD SLGVRIFSAE IYHLFDAFT KYRQDYKKQK  
QEEFKHIAVF PCKIKILPQY IFNSRDPIVM GVTVEAGQVK QGTPMCVPSK NFVDIGIVTS  
IEINHKQVDV AKKGQEVCKV IEPGIPGESP MFGRHFEATD ILVSKISRQS IDALKDWFRD  
EMQKSDWQLI VELKKVFEII

**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!

Product Details

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 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:	EIF5B
Alternative Name:	EIF5B ( <a href="#">EIF5B Products</a> )
Background:	Eukaryotic translation initiation factor 5B (eIF-5B) (EC 3.6.5.3) (Translation initiation factor IF-2),FUNCTION: Plays a role in translation initiation (PubMed:10659855, PubMed:35732735). Ribosome-dependent GTPase that promotes the joining of the 60S ribosomal subunit to the pre-initiation complex to form the 80S initiation complex with the initiator methionine-tRNA in the P-site base paired to the start codon (PubMed:10659855, PubMed:35732735). Together with eIF1A (EIF1AX), actively orients the initiator methionine-tRNA in a conformation that allows 60S ribosomal subunit joining to form the 80S initiation complex (PubMed:12569173, PubMed:35732735). Is released after formation of the 80S initiation complex (PubMed:35732735). Its GTPase activity is not essential for ribosomal subunits joining, but GTP hydrolysis is needed for eIF1A (EIF1AX) ejection quickly followed by EIF5B release to form elongation-competent ribosomes (PubMed:10659855, PubMed:35732735). In contrast to its procaryotic homolog, does not promote recruitment of Met-rRNA to the small ribosomal subunit (PubMed:10659855). {ECO:0000269 PubMed:10659855,

## Target Details

ECO:0000269|PubMed:12569173, ECO:0000269|PubMed:35732735}.

Molecular Weight: 138.8 kDa

UniProt: [O60841](#)

## 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.

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