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Datasheet for ABIN3135726  
**EIF4G1 Protein (AA 1-1600) (Strep Tag)**

### Overview

Quantity:	1 mg
Target:	EIF4G1
Protein Characteristics:	AA 1-1600
Origin:	Mouse
Source:	Tobacco ( <i>Nicotiana tabacum</i> )
Protein Type:	Recombinant
Purification tag / Conjugate:	This EIF4G1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

### Product Details

Sequence:	<p>MNKAPQQTGP PPARSPGLPQ PAFPPGQTAP VVFSTPQATQ MNTPSQPRQG GFRSLQHFYP SRAQPPSSAA SRVQSAAPAR PGPAPHVYPA GSQVMMIPSQ ISYSASQGAY YIPGQGRSTY VVPTQQYPVQ PGAPGFYPGA SPTEFGTYAG AYYPAQGVQQ FPASVAPAPV LMNQPPQIAP KRERKTIRIR DPNQGGKDIT EEIMSGARTA STPTPPQTGG SLEPQPNGES PQVAVIIRPD DRSQGAAIGG RPGLPGPEHS PGTESQPSSP SPTSPPPPIL EPGSESNLGV LSIPGDTMTT GMIPMSVEES TPISCETGEP YCLSPEPTLA EPILEVEVTL SKPIPESEFS SSPLQVSTAL VPHKVETHEP NGVIPSEDLE PEVESSTEPA PPPLSPCASE SLVPIAPTAQ PEELLNGAPS PPAVDLSPVS EPEEQAKKVS SAALASILSP APPVAPSDTS PAQEEEMEED DDDEEGGEAE SEKGGEDVPL DSTPVAQLS QNLEVAATQ VAVSVPKRRR KIKELNKKEA VGDLLDAFKE VDPVAVPEVEN QPPTGSNPSP ESEGS MVPTQ PEETEETWDS KEDKIHNAEN IQPGEQKYEY KSDQWKPLNL EEKKRYDREF LLGFQFIFAS MQKPEGLPHI TDVWLDKANK TPLRQLDPSR LPGINGCPDF TPSFANLGRP ALSNRGPPRG GPGGELPRGP AGLGPRRSQQ GPRKETRKII</p>
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SSVIMTEDIK LNKAEKAWKP SSKRTAADKD RGEEDADGSK TQDLFRRVRS ILNKLTPQMF  
QQLMKQVTQL AIDTEERLKG VIDLIFEKAI SEPNFVAVYA NMCRCMLALK VPTTEKPTVT  
VNFRKLLLN R CQKEFEKDKD DDEVFEKKQK EMDEAATAEE RGRLEKEELE ARDIARRRSL  
GNIKFIGELF KLMLEAIM HDCVVKLLKN HDEESLECLC RLLTTIGKDL DFAKAKPRMD  
QYFNQMEKII KEKKTSSRIR FMLQDVLDLR QSNWVPRRGD QGPKTIDQIH KEAEMEEHRE  
HIKVQQLMAK GSDKRRGGPP GPPINRGLPL VDDGGWNTVP ISKGSRPIDT SRLTKITKPG  
SIDSNNQLFA PGGRLSWGKG SSGGSGAKPS DTASEATRPA TLNRFSAALQQ TLPARENTDNR  
RVVQRSSLSR ERGEKAGDRG DRLERSERGG DRGDRLDRAR TPATKRSFSK EVEERSRERP  
SQPEGLRCAA SLTEDRGRDP VKREATLPPV SPPKAALSVD EVEKSKAII EYHLHNDMK  
EAVQCVQELA SPSLLFIFVR LGIESTLERS TIAREHMGRL LHQLLCAGHL STAQYYQGLY  
ETLELAEDME IDIPHVWLYL AELITPILQE DGVPMGELFR EITKPLRPMG KATSLLEIL  
GLLCKSMGPK KVGMLWREAG LSWREFLAEG QDVGSFVAEK KVEYTLGEES EAPGQRTLAF  
EELRRQLEKL LKDGGSNQRV FDWIDANLNE QQIASNTLVR ALMTTVCYSA IIFETPLRVD  
VQVLKVRARL LQKYLCDEQK ELQALYALQA LVVTLEQPAN LLRMFFDALY DEDVVKEDAF  
YSWESSKDPA EQQKGVALK SVTAFFNWLR EAEDDESDHN

**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-

## Product Details

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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®): <ol style="list-style-type: none"><li>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.</li><li>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.</li></ol>
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)

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## Target Details

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Target:	EIF4G1
Alternative Name:	Eif4g1 ( <a href="#">EIF4G1 Products</a> )
Background:	Eukaryotic translation initiation factor 4 gamma 1 (eIF-4-gamma 1) (eIF-4G 1) (eIF-4G1),FUNCTION: Component of the protein complex eIF4F, which is involved in the recognition of the mRNA cap, ATP-dependent unwinding of 5'-terminal secondary structure and recruitment of mRNA to the ribosome. Exists in two complexes, either with EIF1 or with EIF4E (mutually exclusive). Together with EIF1, is required for leaky scanning, in particular for avoiding cap-proximal start codon. Together with EIF4E, antagonizes the scanning promoted by EIF1-EIF4G1 and locates the start codon (through a TISU element) without scanning. As a member of the eIF4F complex, required for endoplasmic reticulum stress-induced ATF4 mRNA translation.

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## Target Details

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{ECO:0000250|UniProtKB:Q04637}.

Molecular Weight: 176.1 kDa

UniProt: [Q6NZJ6](#)

## 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 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. 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)