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Datasheet for ABIN3088011
EIF4ENIF1 Protein (AA 1-985) (Strep Tag)

Overview

Quantity:	1 mg
Target:	EIF4ENIF1
Protein Characteristics:	AA 1-985
Origin:	Human
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This EIF4ENIF1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

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Sequence: MDRRSMGETE SGDAFLDLKK PPASKCPHRY TKEELLDIKE LPHSKQRPSC LSEKYDSDGV
WDPEKWHASL YPASGRSSPV ESLKKELDTD RPSLVRRIVD PRERVKEDDL DVVLSQRRS
FGGGCHVTAA VSSRRSGSPL EKDSGLRLL GGRRIGSGRI ISARTFEKDH RLSDKDLRDL
RDRDRERDFK DKRFRREFGD SKRVFGERRR NDSYTEEEPE WFSAGPTSQS ETIELTGFDD
KILEEDHKGR KRTRRRTASV KEGIVECNGG VAEDEVEVI LAQEPAADQE VPRDAVLPEQ
SPGDFDFNEF FNLDKVPCLA SMIEDVLGEG SVSASRFSRW FSNPSRSGSR SSSLGSTPHE
ELERLAGLEQ AILSPGQNSG NYFAPILED HAENKVDILE MLQKAKVDLK PLLSSLSANK
EKLKESHSYG VVLSVEEVEA GLKGLKVDQQ VKNSTPFMAE HLEETLSAVT NNRQLKKDGD
MTAFNKLVT MKASGTLPSQ PKVSRNLESH LMSPAEIPGQ PVPKNILQEL LGQPVQRPAS
SNLLSGLMGS LEPTTSLGQ RAPSPPLSQV FQTRAASADY LRPRIPSPIG FTPGPPQLLG
DPFQGMKPM SPITAMSQL ELQQALEGL ALPHDLAVQA ANFYQPGFGK PQVDRTRDGF
RNRQQRVTKS PAPVHRGNSS SPAPAASITS MLSPSFTPTS VIRKMYESKE KSKEEPASGK

AALGDSKEDT QKASEENLLS SSSVPSADRD SSPTTNSKLS ALQRSSCSTP LSQANRYTKE
QDYRPKATGR KTPTLASPVP TTPFLRPVHQ VPLVPHVPMV RPAHQLHPGL VQRMLAQGVH
PQHLPSSLQT GVLPPGMDLS HLQGISGPIL GQPFYPLPAA SHPLLNPRPG TPLHLAMVQQ
QLQRSVLHPP GSGSHAAAVS VQTTPQNVPS RSLPHMHSQ LEHRPSQRSS SPVGLAKWFG
SDVLQQPLPS MPAKVISVDE LEYRQ

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.

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

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

Target Details

Target:	EIF4ENIF1
Alternative Name:	EIF4ENIF1 (EIF4ENIF1 Products)
Background:	<p>Eukaryotic translation initiation factor 4E transporter (4E-T) (eIF4E transporter) (Eukaryotic translation initiation factor 4E nuclear import factor 1),FUNCTION: EIF4E-binding protein that regulates translation and stability of mRNAs in processing bodies (P-bodies) (PubMed:16157702, PubMed:24335285, PubMed:27342281, PubMed:32354837). Plays a key role in P-bodies to coordinate the storage of translationally inactive mRNAs in the cytoplasm and prevent their degradation (PubMed:24335285, PubMed:32354837). Acts as a binding platform for multiple RNA-binding proteins: promotes deadenylation of mRNAs via its interaction with the CCR4-NOT complex, and blocks decapping via interaction with eIF4E (EIF4E and EIF4E2), thereby protecting deadenylated and repressed mRNAs from degradation (PubMed:27342281, PubMed:32354837). Component of a multiprotein complex that sequesters and represses translation of proneurogenic factors during neurogenesis (By similarity). Promotes miRNA-mediated translational repression (PubMed:24335285, PubMed:27342281, PubMed:28487484). Required for the formation of P-bodies (PubMed:16157702, PubMed:22966201, PubMed:27342281, PubMed:32354837). Involved in mRNA translational repression mediated by the miRNA effector TNRC6B by protecting TNRC6B-targeted mRNAs from decapping and subsequent decay (PubMed:32354837). Also acts as a nucleoplasmic shuttling protein, which mediates the nuclear import of EIF4E and DDX6 by a piggy-back mechanism (PubMed:10856257, PubMed:28216671).</p>

Target Details

{ECO:0000250|UniProtKB:Q9EST3, ECO:0000269|PubMed:10856257, ECO:0000269|PubMed:16157702, ECO:0000269|PubMed:22966201, ECO:0000269|PubMed:24335285, ECO:0000269|PubMed:27342281, ECO:0000269|PubMed:28216671, ECO:0000269|PubMed:28487484, ECO:0000269|PubMed:32354837}.

Molecular Weight: 108.2 kDa

UniProt: [Q9NRA8](#)

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)