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Datasheet for ABIN3092270

## Ephrin A1 Protein (EFNA1) (AA 1-1120) (Strep Tag)

### Overview

Quantity:	1 mg
Target:	Ephrin A1 (EFNA1)
Protein Characteristics:	AA 1-1120
Origin:	Human
Source:	Tobacco ( <i>Nicotiana tabacum</i> )
Protein Type:	Recombinant
Purification tag / Conjugate:	This Ephrin A1 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

### Product Details

Sequence: MVLNSLDKMI QLQKNTANIR NICVLAHVDH GKTTLADCLI SSNGISSL AGKLR YMDSR  
EDEQIRGITM KSSAISLHYA TGNEEYLINL IDSPGHVDFS SEVSTAVRIC DGCIIVDDAV  
EGVCPQTQAV LRQAWLENIR PVLVINKIDR LEVELKFTPQ EAYSHLKNIL EQINALTGTL  
FTSKVLEERA ERETESQVNP NSEQGEQVYD WSTGLEDTDD SHLYFSPEQG NVVFTSAIDG  
WFGIEHFAR IYSQKIGIKK EVLMKTLWGD YYINMKAKKI MKGDQAKGKK PLFVQLILEN  
IWSLYDAVLK KDKDKIDKIV TSLGLKIGAR EARHSDPKVQ INAICSQWLP ISHAVLAMVC  
QKLPSPLDIT AERVERLMCT GSQTFDSFPP ETQALKA AFM KCGSEDTAPV IIFVSKMFAV  
DAKALPQNKP RPLTQEEIAQ RRERARQRHA EKLAAAQQA PLEPTQD GSA IETCPKGEEP  
RGDEQQVESM TPKPVLQEEN NQESFI AFAR VFSGVARRGK KIFVLGPKYS PLEFLRRVPL  
GFSAPPDGLP QVPHMAYCAL ENLYLLMGRE LEYLEEVPPG NVLGIGGLQD FVLKSATLCS  
LPSCPPFIPL NFEATPIVRV AVEPKHPSEM PQLVKGMKLL NQADPCVQIL IQETGEHVLV  
TAGEVHLQRC LDDLKERFAK IHISVSEPII PFRETITKPP KVDMVNEEIG KQKQVAVIHQ

MKEDQSKIPE GIQVSDGLI TITTPNKLAT LSVRAMPLPE EVTQILEENS DLIRSMEQLT  
SSLNEGENTH MIHQKTQEKI WEFKGGLEQH LTGRRWRNIV DQIWSFGPRK CGPNILVNKS  
EDFQNSVWTG PADKASKEAS RYRDLGNSIV SGFQLATLSG PMCEEPLMGV CFVLEKWDLS  
KFEEQGASDL AKEGQENET CSGGNENQEL QDGCSEAFEK RTSQKGESPL TDCYGPFGSQ  
LIATMKEACR YALQVKPQRL MAAMYTCDIM ATGDVLGRVY AVLSKREGRV LQEEMKEGTD  
MFIKAVLPV AESFGFADEI RKRTSGLASP QLVFSHWEII PSDPFWVPTT EEEYLHFGEK  
ADSENQARKY MNAVRKRKGL YVEEKIVEHA EKQRTLSKNK

**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!

#### Concentration:

## Product Details

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- 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.
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.

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**Purity:** >80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

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**Endotoxin Level:** Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)

## Target Details

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**Target:** Ephrin A1 (EFNA1)

**Alternative Name:** EFL1 ([EFNA1 Products](#))

**Background:** Elongation factor-like GTPase 1 (Elongation factor Tu GTP-binding domain-containing protein 1) (Elongation factor-like 1) (Protein FAM42A),FUNCTION: Involved in the biogenesis of the 60S ribosomal subunit and translational activation of ribosomes. Together with SBDS, triggers the GTP-dependent release of EIF6 from 60S pre-ribosomes in the cytoplasm, thereby activating ribosomes for translation competence by allowing 80S ribosome assembly and facilitating EIF6 recycling to the nucleus, where it is required for 60S rRNA processing and nuclear export. Has low intrinsic GTPase activity. GTPase activity is increased by contact with 60S ribosome subunits. {ECO:0000269|PubMed:21536732}.

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**Molecular Weight:** 125.4 kDa

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**UniProt:** [Q7Z2Z2](#)

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**Pathways:** [RTK Signaling](#)

## 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

## Application Details

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guarantee though.

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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)