

Datasheet for ABIN3089042  
**FE65 Protein (AA 1-710) (Strep Tag)**[Go to Product page](#)

## 1 Image

## Overview

Quantity:	1 mg
Target:	FE65 (APBB1)
Protein Characteristics:	AA 1-710
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This FE65 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), ELISA, SDS-PAGE (SDS)

## Product Details

Sequence:	<p>MSPVSSLSQS AINANSHGGP ALSLPLPLHA AHNQLLNAKL QATAVGPKDL RSAMGEGGGP EPGPANAKWL KEGQNQLRRA ATAHRDQNRN VTLTLAEEAS QEPEMAPLGP KGLIHLYSEL ELSAHNAANR GLRGPLIIS TQEQGPDEGE EKAAGEAEEE EEDDDDEEEE EDLSSPPGLP EPLESVEAPP RPQALTDGPR EHSKSASLLF GMRNSAASDE DSSWATLSQG SPSYGSPEDT DSFWNPNAFE TDSDLPAGWM RVQDTSGTYY WHIPTGTTQW EPPGRASPSQ GSSPQEEESQL TWTGFAHGEF FEDGEFWKDE PSDEAPMELG LKEPEEGTLT FPAQSLSPEP LPQEEELPP RNTNPGIKCF AVRSLGWVEM TEEELAPGRS SVAVNNCIRQ LSYHKNNLHD PMSGGWGEGK DLLLQLEDET LKLVEPQSQA LLHAQPIISI RVWGVGRDSG RERDFAYVAR DKLTQMLKCH VFRCEAPAKN IATSLHEICS KIMAERRNAR CLVNGLSLDH SKLVDVPFQV EFPAPKNELV QKFQVYYLGN VPVAKPVGVD VINGALESVL SSSSREQWTP SHVSVAPATL TILHQQTEAV LGEICRVRLS FLAVGRDVHT FAFIMAAGPA SFCCHMFWCE PNAASLSEAV QAACMLRYQK CLDARSQAST SCLPAPPAES VARRVGWTVR RGVQSLWGSL KPKRLGAHTP</p>
-----------	--

**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 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®):

---

## Product Details

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: FE65 (APBB1)

Alternative Name: APBB1 ([APBB1 Products](#))

Background: Amyloid beta precursor protein binding family B member 1 (Amyloid-beta A4 precursor protein-binding family B member 1) (Protein Fe65),FUNCTION: Transcription coregulator that can have both coactivator and corepressor functions (PubMed:15031292, PubMed:18468999, PubMed:18922798, PubMed:25342469, PubMed:33938178). Adapter protein that forms a transcriptionally active complex with the gamma-secretase-derived amyloid precursor protein (APP) intracellular domain (PubMed:15031292, PubMed:18468999, PubMed:18922798, PubMed:25342469). Plays a central role in the response to DNA damage by translocating to the nucleus and inducing apoptosis (PubMed:15031292, PubMed:18468999, PubMed:18922798, PubMed:25342469). May act by specifically recognizing and binding histone H2AX phosphorylated on 'Tyr-142' (H2AXY142ph) at double-strand breaks (DSBs), recruiting other pro-apoptosis factors such as MAPK8/JNK1 (PubMed:19234442). Required for histone H4 acetylation at double-strand breaks (DSBs) (PubMed:19234442). Its ability to specifically bind modified histones and chromatin modifying enzymes such as KAT5/TIP60, probably explains its transcription activation activity (PubMed:33938178). Functions in association with TSHZ3, SET and HDAC factors as a transcriptional repressor, that inhibits the expression of CASP4 (PubMed:19343227). Associates with chromatin in a region surrounding the CASP4 transcriptional start site(s) (PubMed:19343227). Involved in hippocampal neurite branching and neuromuscular junction formation, as a result plays a role in spatial memory functioning (By similarity). Plays a role in the maintenance of lens transparency (By similarity). May play a role in muscle cell strength (By similarity). Acts as a molecular adapter that functions in neurite outgrowth by activating the RAC1-ARF6 axis upon insulin treatment (PubMed:36250347). {ECO:0000250|UniProtKB:Q9QXJ1, ECO:0000269|PubMed:15031292,

## Target Details

ECO:0000269|PubMed:18468999, ECO:0000269|PubMed:18922798,  
ECO:0000269|PubMed:19234442, ECO:0000269|PubMed:19343227,  
ECO:0000269|PubMed:25342469, ECO:0000269|PubMed:33938178,  
ECO:0000269|PubMed:36250347}.

Molecular Weight: 77.2 kDa

UniProt: [O00213](#)

Pathways: [Positive Regulation of Response to DNA Damage Stimulus](#)

## 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.

## Handling

---

Expiry Date: Unlimited (if stored properly)

## Images

---



**Image 1.** „Crystallography Grade“ protein due to multi-step, protein-specific purification process