

Datasheet for ABIN3113051

## ATF6 Protein (AA 1-670) (Strep Tag)



[Go to Product page](#)

### Overview

Quantity:	250 µg
Target:	ATF6
Protein Characteristics:	AA 1-670
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This ATF6 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

### Product Details

Brand:	AliCE®
Sequence:	<p>MGEPAGVAGT MESPFSPLGF HRLDEDWDSA LFAELGYFTD TDELQLEAAN ETYENNFDNL</p> <p>DFDLDLMPWE SDIWDINNQI CTVKDIKAEP QPLSPASSSY SVSSPRSVDS YSSTQHVPEE</p> <p>LDLSSSSQMS PLSLYGENSN SLSSAEPLKE DKPVTGPRNK TENGLTPKKK IQVNSKPSIQ</p> <p>PKPLLLPAAP KTQTNSSVPA KTIIQTVPT LMPLAKQQPI ISLQPAPTKG QTVLLSQPTV</p> <p>VQLQAPGVLP SAQPVLA VAG GTVQLPNHVV NVVPAPSANS PVNGKLSVTK PVLQSTMRNV</p> <p>GSDIAVLRRQ QRMKNRESA CQSRKKKKEY MLGLEARLKA ALSENEQLKK ENGLTKRQLD</p> <p>EVVSENQRLK VPSPKRRVVC VMIVLAFIIL NYGPMMSMLEQ DSRRMNPSVS PANQRRHLLG</p> <p>FSAKEAQDTS DGIIQKNSYR YDHSVSNDKA LMLVTEEPLL YIPPPPCQPL INTTESLRLN</p> <p>HELRGWVHRH EVERTKSRRM TNNQKTRIL QGALEQGSNS QLMVQYTET TSSISRNSGS</p> <p>ELQVYYASPR SYQDFFEAIR RRGDTFYVVS FRRDHLLLP TTHNKTTTPK MSIVLPAINI</p> <p>NENVINGQDY EVMMQIDCQV MDTRILHIKS SSVPPYLRDQ QRNQTNTFFG SPAAATEATH</p>

VVSTIPESLQ

**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 in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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 against its specific reference buffer.
- We use the ExPASy's ProtParam tool to determine the absorption coefficient of each protein.

---

### Purification:

One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®).

---

## Product Details

Purity: > 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

Grade: custom-made

## Target Details

Target: ATF6

Alternative Name: ATF6 ([ATF6 Products](#))

Background: Cyclic AMP-dependent transcription factor ATF-6 alpha (cAMP-dependent transcription factor ATF-6 alpha) (Activating transcription factor 6 alpha) (ATF6-alpha) [Cleaved into: Processed cyclic AMP-dependent transcription factor ATF-6 alpha],FUNCTION: [Cyclic AMP-dependent transcription factor ATF-6 alpha]: Precursor of the transcription factor form (Processed cyclic AMP-dependent transcription factor ATF-6 alpha), which is embedded in the endoplasmic reticulum membrane (PubMed:10564271, PubMed:11158310, PubMed:11779464). Endoplasmic reticulum stress promotes processing of this form, releasing the transcription factor form that translocates into the nucleus, where it activates transcription of genes involved in the unfolded protein response (UPR) (PubMed:10564271, PubMed:11158310, PubMed:11779464). {ECO:0000269|PubMed:10564271, ECO:0000269|PubMed:11158310, ECO:0000269|PubMed:11779464}., FUNCTION: [Processed cyclic AMP-dependent transcription factor ATF-6 alpha]: Transcription factor that initiates the unfolded protein response (UPR) during endoplasmic reticulum stress by activating transcription of genes involved in the UPR (PubMed:10564271, PubMed:11163209, PubMed:11158310, PubMed:11779464). Binds DNA on the 5'-CCAC[GA]-3'half of the ER stress response element (ERSE) (5'-CCAAT-N(9)-CCAC[GA]-3') and of ERSE II (5'-ATTGG-N-CCACG-3') (PubMed:10564271, PubMed:11158310, PubMed:11779464). Binding to ERSE requires binding of NF-Y to ERSE. Could also be involved in activation of transcription by the serum response factor (PubMed:10564271, PubMed:11158310, PubMed:11779464). May play a role in foveal development and cone function in the retina (PubMed:26029869). {ECO:0000269|PubMed:10564271, ECO:0000269|PubMed:11158310, ECO:0000269|PubMed:11163209, ECO:0000269|PubMed:11779464, ECO:0000269|PubMed:26029869}.

Molecular Weight: 74.6 kDa

UniProt: [P18850](#)

Pathways: [ER-Nucleus Signaling, Unfolded Protein Response](#)

## 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.  
Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**

**Handling Advice:** Avoid repeated freeze-thaw cycles.

**Storage:** -80 °C

**Storage Comment:** Store at -80°C.

**Expiry Date:** 12 months