



[Go to Product page](#)

Datasheet for ABIN3133067
TCF3 Protein (AA 1-651) (Strep Tag)

Overview

Quantity:	1 mg
Target:	TCF3
Protein Characteristics:	AA 1-651
Origin:	Mouse
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This TCF3 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence: MMNQSQRMAP VGSDKELSDL LDFSMMFPLP VANGKSRPAS LGGTQFAGSG LEDRPSSGSW
GSSDQNSSSF DPSRTYSEGA HFSDSHSSLP PSTFLGAGLG GKGSEFNAYA TFGDRDTSVGT
LSQAGFLPGE LSLSSPGPLS PSGIKSSSQY YPSFSPNPRR RAADGGLDTQ PKKVRKVPPG
LPSSVYPPSS GDSYSRDAAA YPSAKTPSSA YPSPFYVADG SLHPSAELWS TPSQVGFPGM
LGDGSSPLPL APGSSSVGSG TFGGLQQQDR MGYQLHGSEV NGSLPAVSSF SAAPGTYSGT
SGHTPPVSGA AAESLLGTRG TTASSSGDAL GKALASIYSP DHSSNNFSPS PSTPVGSPQG
LPGTSQWPRA GAPSALSPNY DAGLHGLSKM EDRLDEAIHV LRSHAVGTAS DLHGLLPGHG
ALTTSFTGPM SLGGRHAGLV GGSHPPEGLT SGASLLHNHA SLPSQPSSLP DLSQRPPDSY
SGLGRAGTTA GASEIKREEK EDEEIASVAD AEEDKKDLKV PRTRTSPDED EDDLPPPEQK
AEREKERRVA NNARERLRVR DINEAFKELG RMCQLHLSSE KPQTKLLILH QAVAVILSLE
QQVRERNLNP KAACLKRREE EKVSGVVGDP QLALSAHPG LGEAHNPAGH L

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®):

1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag
-

Product Details

- 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: $\geq 80\%$ 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: TCF3

Alternative Name: Tcf3 ([TCF3 Products](#))

Background: Transcription factor E2-alpha (Immunoglobulin enhancer-binding factor E12/E47) (Transcription factor 3) (TCF-3) (Transcription factor A1),FUNCTION: Transcriptional regulator involved in the initiation of neuronal differentiation and mesenchymal to epithelial transition (PubMed:15226298, PubMed:18214987). Heterodimers between TCF3 and tissue-specific basic helix-loop-helix (bHLH) proteins play major roles in determining tissue-specific cell fate during embryogenesis, like muscle or early B-cell differentiation (PubMed:18214987). Together with TCF15, required for the mesenchymal to epithelial transition (PubMed:11309385, PubMed:15226298). Dimers bind DNA on E-box motifs: 5'-CANNTG-3' (PubMed:15226298, PubMed:18214987, PubMed:30426815). Binds to the kappa-E2 site in the kappa immunoglobulin gene enhancer (By similarity). Binds to IEB1 and IEB2, which are short DNA sequences in the insulin gene transcription control region (PubMed:2181401). {ECO:0000250|UniProtKB:P15923, ECO:0000269|PubMed:11309385, ECO:0000269|PubMed:15226298, ECO:0000269|PubMed:18214987, ECO:0000269|PubMed:2181401}., FUNCTION: [Isoform E47]: Facilitates ATOH7 binding to DNA at the consensus sequence 5'-CAGGTG-3', and positively regulates transcriptional activity. {ECO:0000250|UniProtKB:P15923}.

Molecular Weight: 67.7 kDa

UniProt: [P15806](#)

Pathways: [WNT Signaling](#), [Stem Cell Maintenance](#), [Regulation of Muscle Cell Differentiation](#), [Production of Molecular Mediator of Immune Response](#)

Application Details

Application Notes: In addition to the applications listed above we expect the protein to work for functional studies

Application Details

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)