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Datasheet for ABIN3122107  
**TFCP2L1 Protein (AA 1-479) (Strep Tag)**

### Overview

Quantity:	1 mg
Target:	TFCP2L1
Protein Characteristics:	AA 1-479
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This TFCP2L1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

### Product Details

Sequence: MLFWHTQPEH YNQHNHSGSYL RDVLALPIFK QEEPQLSPEN GARLPPLQYV LCAATSPAVK  
LHEETLYLN QGQSYEIRLL ENRKLGFDFQD LNTKYVKSII RVVFHDRRLQ YTEYQQLEGW  
RWSRPGDRIL DIDIPLSVGI LDPRASPTQL NAVEFLWDPS KRASAFIQVH CISTEFTPRK  
HGGEKGVFPR VQIDTFKQNE SGDYSEHLHS ASCQIKVFKP KGADRKQKTD REKMEKRTAQ  
EKEKYQPSYE TTILTECSPW PDVPYQANNT PPSYNGSPN SFGLREGNSS PNHPVEPLPL  
GSDHLLPSAS IQDAQQLHR NRFSQFCWLF ASFSGADLLK MSRDDLQVC GPADGIRLFN  
AIKGRNVRPK MTIYVCQELE QNQLPLPQKQ DDSGDNSLCV YHAIFLEELT TLELTEKIAS  
LYSIPPQHIH RVYRQGPAGI HVVVSNEMVQ NFQDESCFIL STLKAESNDG YHIILKCGL

**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.

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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.

## Product Details

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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

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Target: TFCP2L1

Alternative Name: Tfc2l1 ([TFCP2L1 Products](#))

Background: Transcription factor CP2-like protein 1 (CP2-related transcriptional repressor 1) (CRTR-1),FUNCTION: Transcription factor that facilitates establishment and maintenance of pluripotency in embryonic stem cells (ESCs) (PubMed:23942233, PubMed:26321140). With Klf2, acts as the major effector of self-renewal that mediates induction of pluripotency downstream of LIF/Stat3 and Wnt/beta-catenin signaling (PubMed:23942238, PubMed:23942233, PubMed:26321140). Required for normal duct development in the salivary gland and kidney (PubMed:17079272). Coordinates the development of the kidney collecting ducts intercalated (IC) and principal (PC) cells, which regulate acid-base and salt-water homeostasis, respectively (PubMed:28577314). Regulates the expression of IC genes including subunits B1 and D2 of the V-ATPase complex, Oxgr1, Ca12, Slc4a1, Aqp6 and IC-specific transcription factor Foxi1 (PubMed:28577314). Regulates also the expression of Jag1 and subsequent notch signaling in the collecting duct (PubMed:28577314). Jag1 initiates notch signaling in PCs but inhibits notch signaling in ICs (PubMed:28577314). Acts as a transcriptional suppressor that may suppress UBP1-mediated transcriptional activation (PubMed:11073954). Modulates the placental expression of CYP11A1 (By similarity). {ECO:0000250|UniProtKB:Q9NZI6, ECO:0000269|PubMed:11073954, ECO:0000269|PubMed:17079272, ECO:0000269|PubMed:23942233, ECO:0000269|PubMed:23942238, ECO:0000269|PubMed:26321140, ECO:0000269|PubMed:28577314}.

Molecular Weight: 54.7 kDa

UniProt: [Q3UNW5](#)

## 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 guarantee though.

Comment: ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from

## Application Details

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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!

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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)