

Datasheet for ABIN3133470  
**CFTR Protein (AA 1-1476) (Strep Tag)**



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## Overview

Quantity:	250 µg
Target:	CFTR
Protein Characteristics:	AA 1-1476
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This CFTR protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

## Product Details

Brand:	AliCE®
Sequence:	<p>MQKSPLEKAS FISKLFFSWT TPILRKGYRH HLELSDIYQA PSADSADHLS EKLEREWDR</p> <p>QASKKNPQLI HALRRCFFWR FLFYGILLYL GEVTKAVQPV LLGRIIASYD PENKVERSIA</p> <p>IYLGIGLCLL FIVRTLHP AIFGLHRIGM QMRTAMFSLI YKTKLSSR VLDKISIGQL</p> <p>VSLLSNNLNK FDEGLALAHF IWIAPLQVTL LMGLLWDLQ FSAFCGLGLL IILVIFQAIL</p> <p>GKMMVKYRDQ RAAKINERLV ITSEIIDNIY SVKAYCWESA MEKMENLRE VELKMTRKAA</p> <p>YMRFFTSSAF FSGFFVFL SVLPYTVING IVLRKIFTTI SFCIVLRMSV TRQFPTAVQI</p> <p>WYDSFGMIRK IQDFLQKQY KVEYNLMTT GIIMENVTA WEEGFGELLE KVQQSNGDRK</p> <p>HSSDENNVSF SHLCLVGNPV LKNINLNIEK GEMLAITGST GSGKTSLLML ILGELEASEG</p> <p>IIKHSGRVSF CSQFSWIMPG TIKENIIFGV SYDEYRYKSV VKACQLQQDI TKFAEQDNTV</p> <p>LGEGGVTLTG GQRARISLAR AVYKDADLYL LDSPFGYLDV FTEEQVFESC VCKLMANKTR</p> <p>ILVTSKMEHL RKADKILILH QGSSYFYGTF SELQSLRPF SSKLMGYDTF DQFTEERRSS</p>

ILTETLRRFS VDDSSAPWSK PKQSFRQTGE VGEKRKNSIL NSFSSVRKIS IVQKTPLCID  
GESDDLQEKRLSLVPDSEQG EAALPRSNMI ATGPTFPGRR RQSVLDLMTF TPNSGSSNLQ  
RTRTSIRKIS LVPQISLNEV DVYSRRLSQD STLNITEEIN EEDLKECFD DVIKIPPVTT  
WNTYLRFYFTL HKGLLLVLW CVLVFLVEVA ASLFVLWLLK NNPVNSGNNG TKISNSSYVV  
IITSTSFYFI FYIYVGVADT LLALSLFRGL PLVHTLITAS KILHRKMLHS ILHAPMSTIS KLGAGGILNR  
FSKDIALDD FLPLTIFDFI QLVFIVIGAI IVVSALQPYI FLATVPGLVV FILLRAYFLH TAQQLKQLES  
EGRSPIFTHL VTSKGLWTL RAFRRQTYFE TLFHKALNLH TANWFMYLAT LRWFQMRIDM  
IFVLFFIVVT FISILTTGEG EGTAGIILTL AMNIMSTLQW AVNSSIDTDS LMRSVSRVFK  
FIDIQTEESM YTQIIKELPR EGSSDVLVIK NEHVKKSDIW PSGGEMVVKD LTVKYMDDGN  
AVLENISFSI SPGQRVGLLG RTGSGKSTLL SAFLRMLNIK GDIEIDGVSW NSVTLQEWK  
AFGVITQKVF IFSGTFRQNL DPNGKWKDEE IWKVADEVGL KSVIEQFPGQ LNFTLVDGGY  
VLSHGKQLM CLARSVLSKA KIILLDEPSA HLDPTYQVI RRVLKQAFAG CTVILCEHRI  
EAMLDCCRFL VIEESNVWQY DSLQALLSEK SIFQQAISSEKMRFFQGRH SSKHKPRTQI  
TALKEETEEE VQETRL

**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 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

## Product Details

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

## Target Details

Target:	CFTR
Alternative Name:	Cftr ( <a href="#">CFTR Products</a> )
Background:	<p>Cystic fibrosis transmembrane conductance regulator (CFTR) (ATP-binding cassette sub-family C member 7) (Channel conductance-controlling ATPase) (EC 5.6.1.6) (cAMP-dependent chloride channel),FUNCTION: Epithelial ion channel that plays an important role in the regulation of epithelial ion and water transport and fluid homeostasis (PubMed:26823428). Mediates the transport of chloride ions across the cell membrane (PubMed:20231442, PubMed:22265409). Channel activity is coupled to ATP hydrolysis. The ion channel is also permeable to HCO<sub>3</sub><sup>(-)</sup>, selectivity depends on the extracellular chloride concentration. Exerts its function also by modulating the activity of other ion channels and transporters. Contributes to the regulation of the pH and the ion content of the epithelial fluid layer. Modulates the activity of the epithelial sodium channel (ENaC) complex, in part by regulating the cell surface expression of the ENaC complex. May regulate bicarbonate secretion and salvage in epithelial cells by regulating the transporter SLC4A7. Can inhibit the chloride channel activity of ANO1 (By similarity). Plays a role in the chloride and bicarbonate homeostasis during sperm epididymal maturation and capacitation (PubMed:21976599). {ECO:0000250 UniProtKB:P13569, ECO:0000269 PubMed:19033647, ECO:0000269 PubMed:20231442,</p>

## Target Details

ECO:0000269|PubMed:21976599, ECO:0000269|PubMed:22265409,  
ECO:0000269|PubMed:26823428}.

Molecular Weight: 167.9 kDa

UniProt: [P26361](#)

## 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