

Datasheet for ABIN3115423

## TMEM63B Protein (AA 1-832) (Strep Tag)



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### 1 Image

#### Overview

Quantity:	1 mg
Target:	TMEM63B
Protein Characteristics:	AA 1-832
Origin:	Human
Source:	Tobacco ( <i>Nicotiana tabacum</i> )
Protein Type:	Recombinant
Purification tag / Conjugate:	This TMEM63B protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

#### Product Details

Sequence: MLPFLLATLG TTALNNSNPK DYCYSARIRS TVLQGLPFGG VPTVLALDFM CFLALLFLFS  
ILRKVAWDYG RLALVTDADR LRRQERDRVE QEYVASAMHG DSHDRYERLT SVSSSVDFDQ  
RDNGFCSWLT AIFRIKDDEI RDKCGGDAVH YLSFQRHIIG LLVVVGVLSV GIVLPVNFSG  
DLLENNAYSF GRTTIANLKS GNNLLWLHTS FAFLYLLLTV YSMRRHTSKM RYKEDDLVKR  
TLFINGISKY AESEKIKKHF EEAYPNCTVL EARPCYNVAR LMFLDAERKK AERGKLYFTN  
LQSKENVPTM INPKPCGHLC CCVVRGCEQV EAIEYYTKLE QKLKEDYKRE KEKVNEKPLG  
MAFVTFHNET ITAILKDFN VCKCQGCTCR GEPRPSSCSE SLHISNWTVS YAPDPQNIYW  
EHLIRGFIW WLRCLVINVV LFILLFFLTT PAIIITMDK FNVTKPVEYL NNPIITQFFP TLLLWCFSAL  
LPTIVYYSAF FEAHWTRSGE NRTTMHKCYT FLIFMVLLLP SLGLSSLDLF FRWLFDKKFL  
AEEAIRFECV FLPDNGAFFV NYVIASAFIG NAMDLLRIPG LLMYMIRLCL ARSAAERNV  
KRHQAYEFQF GAAYAWMMCV FTVVMTYSIT CPIIVPFGLM YMLLKHLVDR YNLYYAYLPA  
KLDKKIHSGA VNQVVAAPIL CLFWLLFFST MRTGFLAPTS MFTFVVLVIT IVICLCHVCF

GHFKYLSAHN YKIEHTETDT VDPRSNRPP TAAAVPKSAK YIAQVLQDSE VDGDDGAPG  
SSGDEPPSSS SQDELLMPP DALTDTFQS CEDSLIENEI HQ

**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 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.

## Product Details

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Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): <ol style="list-style-type: none"><li>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.</li><li>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.</li></ol>
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

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Target:	TMEM63B
Alternative Name:	TMEM63B ( <a href="#">TMEM63B Products</a> )
Background:	CSC1-like protein 2 (Transmembrane protein 63B),FUNCTION: Acts as an osmosensitive calcium-permeable cation channel (By similarity). Mechanosensitive ion channel that converts mechanical stimuli into a flow of ion (PubMed:37543036). Acts as an inner ear osmosensor, essential for normal hearing and survival of inner ear outer hair cells (OHCs). Mediates calcium-dependent regulatory volume decrease in OHCs which is necessary for their survival. Required for the maintenance of the morphological integrity of OHCs under hypotonic conditions. Mediates hypo-osmolarity-induced calcium influx, leading to activation of calcium-dependent potassium channels required for the maintenance of OHC morphology (By similarity). {ECO:0000250 UniProtKB:Q3TWI9, ECO:0000269 PubMed:37543036}.
Molecular Weight:	95.0 kDa
UniProt:	<a href="#">Q5T3F8</a>

## 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 <i>Nicotiana tabacum</i> c.v.. This contains all the protein expression machinery needed to produce

## Application Details

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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)

## Images

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