

[Go to Product page](#)

Datasheet for ABIN3121871

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

Overview

Quantity:	1 mg
Target:	TMEM63B
Protein Characteristics:	AA 1-832
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
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 TAALNSSNPK DYCYSARIRS TVLQGLPFGG VPTVLALDFM CFLALLFLFS ILRKVAWDYG RLALVTDADR LRRQERERVE QEYVASAMHG DSHDRYERLT SVSSSVDFDQ RDNGFCSWLT AIFRIKDDEI RDKCGGDAVH YLSFQRHIIG LLVVVGVLVS GIVLPVNFSG DLLENNAYSF GRTTIANLKS GNNLLWLHTS FAFLYLLLTV YSMRRHTSKM RYKEDDLVKR TLFINGISKY AESEKIKKHF EEAYPNCTVL EARPCYNVAR LMFLDAERKK AERGKLYFTN LQSKENVPAM INPKPCGHLC CCVVRGCEQV EAIEYYTKLE QRLKEDYRRE KEKVNEKPLG MAFVTFHNET ITAILKDFN VCKCQGCTCR GEPRASSCSE ALHISNWTVT YAPDPQNIYW EHLIRGFIW WLRCLVINVV LFILLFFLT TPAIIITMDK FNVTKPVEYL NNPIITQFFP TLLLWCFSAL LPTIVYYSAF FEAHWTRSGE NRTTMHKCYT FLIFMVLLLP SLGLSSLDLF FRWLFDDKKFL AEEAIRFECV FLPDNGAFFV NYVIASAFIG NAMDLLRIPG LLMYMIRLCL ARSAAERNV KRHQAYEFQF GAAYAWMMCV FTVVMTYSIT CPIIVPFGLM YMLLKHLVDR YNLYYAYLPA KLDKKIHSGA VNQVVAAPIL CLFWLLFFST MRTGFLAPTS MFTFVVLVIT IVICLCHVCF
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GHFKYLSAHN YKIEHTETDA VSSRSNGRPP TAGAVPKSAK YIAQVLQDSE GDGDGDGAPG
SSGDEPPSSS SQDEELLMPP DGLTDTDFQS 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.

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

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.
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

Target:	TMEM63B
Alternative Name:	Tmem63b (TMEM63B Products)
Background:	CSC1-like protein 2 (Transmembrane protein 63B),FUNCTION: Acts as an osmosensitive calcium-permeable cation channel (PubMed:27045885, PubMed:31243992, PubMed:37543036, PubMed:32375046). Mechanosensitive ion channel that converts mechanical stimuli into a flow of ion (PubMed:30382938, PubMed:37543036). Acts as an inner ear osmosensor, essential for normal hearing and survival of inner ear outer hair cells (OHCs)(PubMed:32375046). Mediates calcium-dependent regulatory volume decrease in OHCs which is necessary for their survival (PubMed:32375046). Required for the maintenance of the morphological integrity of OHCs under hypotonic conditions (PubMed:32375046). Mediates hypo-osmolarity-induced calcium influx, leading to activation of calcium-dependent potassium channels required for the maintenance of OHC morphology (PubMed:32375046). {ECO:0000269 PubMed:27045885, ECO:0000269 PubMed:30382938, ECO:0000269 PubMed:31243992, ECO:0000269 PubMed:32375046, ECO:0000269 PubMed:37543036}.
Molecular Weight:	94.8 kDa
UniProt:	Q3TWI9

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.
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Application Details

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)