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Datasheet for ABIN3115339

TMEM67 Protein (AA 1-995) (Strep Tag)

1 Image

Overview

Quantity:	1 mg
Target:	TMEM67
Protein Characteristics:	AA 1-995
Origin:	Human
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This TMEM67 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence: MATRGGAGVA MAVWSLLSAR AVTAFLLLFL PRFLQAQTFS FPFQQPEKCD NNQYFDISAL
SCVPCGANQR QDARGTSCVC LPGFQMISNN GGPAIICKKC PENMKGVTED GWNCISCP
LTAEGKCHCP IGHILVERDI NGTLLSQATC ELCDGNENSF MVVNALGDRC VRCEPTFVNT
SRSCACSEPN ILTGGLCFSS TGNFPLRRIS AARYGEVGMSTLSEWFAKYL QSSAAACWVY
ANLTSCQALG NMCVMNMNSY DFATFDACGL FQFIFENTAG LSTVHSISFW RQNLPLWLFY
DQLGLAPQVL SSTSPLTNFS FKGENQNTKL KFVAASYDIR GNFLKWQTLE GVLQVLCPTD
ETRLNAAYSF GTTYQNCIEI PISKILIDFP TPIFYDVYLE YTDENQHQYI LAVPVLNINL
QHNKIFVNQD SNSGKWLLTR RIFLVDAVSG RENDLGTQPR VIRVATQISL SVHLPNTIN
GNIYPLITI AYSDIDIKDA NSQSVKVSFS VTYEMDHGEA HVQTDIALGV LGGLAVLASL
LKTAGWKRRIGSPMIDLQTV VKFLVYYAGD LANVFFIITV GTGLYWLIFV KAQKSVSVLL
PMPIQEERFV TYVGCAFALK ALQFLHKLIS QITIDVFFID WERPKGKVLK AVEGEGGVRS
ATVPVSIWRT YFVANEWNEI QTVRKINSLF QVLTVLFFLE VVGFKNLALM DSSSSLSRNP

PSYIAPYSCI LRYAVSAALW LAIGIIQVVF FAVFYERFIE DKIRQFVDLC SMSNISVFL L SHKCFGYI IH
GRSVHGHADT NMEEMNMNLK REAENLCSQR GLVPNTDGQT FEIAISNQMR QHYDRIHETL
IRKNGPARLL SSSASTFEQS IKAYHMMNKF LGSFIDHVHK EMDYFIKDKL LLERILGMEF
MEPMEKSIFY NDEGYSFSSV LYYGNEATLL IFDLLFFCVV DLACQNFILA SFLTYLQQEI
FRYIRNTVGQ KNLASKTLVD QRFLI

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

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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®): <ol style="list-style-type: none">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:	TMEM67
Alternative Name:	TMEM67 (TMEM67 Products)
Background:	Meckelin (Meckel syndrome type 3 protein) (Transmembrane protein 67),FUNCTION: Required for ciliary structure and function. Part of the tectonic-like complex which is required for tissue-specific ciliogenesis and may regulate ciliary membrane composition (By similarity). Involved in centrosome migration to the apical cell surface during early ciliogenesis. Involved in the regulation of cilia length and appropriate number through the control of centrosome duplication. Is a key regulator of stereociliary bundle orientation (By similarity). Required for epithelial cell branching morphology. Essential for endoplasmic reticulum-associated degradation (ERAD) of surfactant protein C (SFTPC). Involved in the negative regulation of canonical Wnt signaling, and activation of the non-canonical cascade stimulated by WNT5A (PubMed:26035863). In non-canonical Wnt signaling, it may act as ROR2 coreceptor (By similarity). {ECO:0000250 UniProtKB:Q8BR76, ECO:0000269 PubMed:17185389, ECO:0000269 PubMed:19515853, ECO:0000269 PubMed:19596800, ECO:0000269 PubMed:19815549, ECO:0000269 PubMed:26035863}.
Molecular Weight:	111.7 kDa
UniProt:	Q5HYA8

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. 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)



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