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Datasheet for ABIN3095919

TENC1 Protein (AA 1-1409) (Strep Tag)

1 Image

Overview

Quantity:	1 mg
Target:	TENC1
Protein Characteristics:	AA 1-1409
Origin:	Human
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This TENC1 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence: MKSSGPVERL LRALGRRDSS RAASRPRKAE PHSFREKVFR KKPPVCAVCK VTIDGTGVSC
 RVCKVATHRK CEAKVTSACQ ALPPVELRRN TAPVRRIEHL GSTKSLNHSK QRSTLPRSFS
 LDPLMERRWD LDLTYVTERI LAAAFPARPD EQRHRGHLRE LAHVLQSKHR DKYLLFNLSE
 KRHDLTRLNP KVQDFGWPEL HAPPLDKLCS ICKAMETWLS ADPQHVVVLY CKGNKGKLGV
 IVSAYMHYSK ISAGADQALA TLTMRKFCED KVATELQPSQ RRYISYFSGL LSGSIRMNSS
 PLFLHYVLIP MLPAFEPGTG FQPFLKIYQS MQLVYTSQVY HIAGPGPQQL CISLEPALLL
 KGDVMVTCYH KGGRGTDRTL VFRVQFHTCT IHGPQLTFPK DQLDEAWTDE RFPFQASVEF
 VFSSSPEKIK GSTPRNDPSV SVDYNTTEPA VRWDSYENFN QHHEDSVDGS LTHTRGPLDG
 SPYAQVQRPP RQTPPAPSPE PPPPMLSVS SDSGHSSTLT TEPAAESPGR PPPTAAERQE
 LDRLGCGCV ASGGRGAGRE TAILDDEEQP TVGGGPHLGV YPGHRPGLSR HCSCRQGYRE
 PCGVPNGGYR RPEGLERRR LAYGGYEGSP QGYAEASMEK RRLCRSLSEG LYPYPPEMGK
 PATGDFGYRA PGYREWILE DPGLPALYPC PACEEKLALP TAALYGLRLE REAGEGWASE

AGKPLLHPVR PGHPLPLLLP ACGHHHAPMP DYSCLKPPKA GEEGHEGCSY TMCPEGRYGH
PGYPALVTYS YGGAVPSYCP AYGRVPHSCG SPGEGRGYPS PGAHSPRAGS ISPGSPYPYQ
SRKLSYEIPT EEGDRYPLP GHLASAGPLA SAESLEPVSW REGPSGHSTL PRSPRDAPCS
ASSELSGPST PLHTSSPVQG KESTRRQDTR SPTSAPTQRL SPGEALPPVS QAGTGKAPEL
PSGSGPEPLA PSPVSPTFFP SSPSDWPQER SPGGHSDGAS PRSPVPTTLP GLRHAPWQGP
RGPPDSPDGS PLTPVPSQMP WLVASPEPPQ SSPTPAFPLA ASYDTNGLSQ PPLPEKRHLP
GPGQQPGPWG PEQASSPARG ISHHVTFAPL LSDNVPQTPE PPTQESQSNV KFVQDTSKFW
YKPHLSRDQA IALLKDKDPG AFLIRDHSF QGAYGLALKV ATPPPSAQPW KGDPVEQLVR
HFLIETGPKG VKIKGCPSEP YFGSLSALVS QHSISPISLP CCLRIPSKDP LEETPEAPVP
TNMSTAADLL RQGAACSVLY LTSVETESLT GPQAVARASS AALSCSPRPT PAVVHFVSA
QGITLTDNQR KLFRRHYVPV NSITFSSTDP QDRRWTPNDG TTSKIFGFVA KPKGSPWENV
CHLFAELDPD QPAGAIVTFI TKVLLGQRK

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

Product Details

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.

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:	TENC1
Alternative Name:	TNS2 (TENC1 Products)
Background:	Tensin-2 (EC 3.1.3.48) (C1 domain-containing phosphatase and tensin homolog) (C1-TEN) (Tensin-like C1 domain-containing phosphatase),FUNCTION: Tyrosine-protein phosphatase which regulates cell motility, proliferation and muscle-response to insulin (PubMed:15817639, PubMed:23401856). Phosphatase activity is mediated by binding to phosphatidylinositol-3,4,5-triphosphate (PtdIns(3,4,5)P3) via the SH2 domain (PubMed:30092354). In muscles and under catabolic conditions, dephosphorylates IRS1 leading to its degradation and muscle atrophy (PubMed:23401856, PubMed:30092354). Negatively regulates PI3K-AKT pathway activation (PubMed:15817639, PubMed:23401856, PubMed:30092354). Dephosphorylates nephrin NPHS1 in podocytes which regulates activity of the mTORC1 complex (PubMed:28955049). Under normal glucose conditions, NPHS1 outcompetes IRS1 for binding to phosphatidylinositol

Target Details

3-kinase (PI3K) which balances mTORC1 activity but high glucose conditions lead to up-regulation of TNS2, increased NPHS1 dephosphorylation and activation of mTORC1, contributing to podocyte hypertrophy and proteinuria (PubMed:28955049). Required for correct podocyte morphology, podocyte-glomerular basement membrane interaction and integrity of the glomerular filtration barrier (By similarity). Enhances RHOA activation in the presence of DLC1 (PubMed:26427649). Plays a role in promoting DLC1-dependent remodeling of the extracellular matrix (PubMed:20069572). {ECO:0000250|UniProtKB:Q8CGB6, ECO:0000269|PubMed:15817639, ECO:0000269|PubMed:20069572, ECO:0000269|PubMed:23401856, ECO:0000269|PubMed:26427649, ECO:0000269|PubMed:28955049, ECO:0000269|PubMed:30092354}.

Molecular Weight: 152.6 kDa

UniProt: [Q63HR2](#)

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

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)

Images



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