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Datasheet for ABIN3096074

TRIB3 Protein (AA 1-358) (Strep Tag)

Overview

Quantity:	1 mg
Target:	TRIB3
Protein Characteristics:	AA 1-358
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This TRIB3 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence: MRATPLAAPA GSLSRKKRLE LDDNLDTERP VQKRARSGPQ PRLPPCLLPL SPPTAPDRAT
AVATASRLGP YVLLPEEGG RAYQALHCPT GTEYTCKVYP VQEALAVLEP YARLPPHKHV
ARPTEVLGAT QLLYAFFTRT HGDMHSLVRS RHRIFEPEAA VLFRQMATAL AHCHQHGLVL
RDLKLCRFVF ADRERKKLVL ENLEDSCVLT GPDDSLWDKH ACPAYVGPEI LSSRASYSYGK
AADVWSLGVA LFTMLAGHYP FQDSEPVLLF GKIRRGAYAL PAGLSAPARC LVRCLLRREP
AERLTATGIL LHPWLRQDPM PLAPTRSHLW EAAQVVPDGL GLDEAREEEG DREVVLYG

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.

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.

Product Details

Endotoxin Level: Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)

Target Details

Target: TRIB3

Alternative Name: TRIB3 ([TRIB3 Products](#))

Background: Tribbles homolog 3 (TRB-3) (Neuronal cell death-inducible putative kinase) (SINK) (p65-interacting inhibitor of NF-kappa-B),FUNCTION: Inactive protein kinase which acts as a regulator of the integrated stress response (ISR), a process for adaptation to various stress (PubMed:15781252, PubMed:15775988). Inhibits the transcriptional activity of DDIT3/CHOP and is involved in DDIT3/CHOP-dependent cell death during ER stress (PubMed:15781252, PubMed:15775988). May play a role in programmed neuronal cell death but does not appear to affect non-neuronal cells (PubMed:15781252, PubMed:15775988). Acts as a negative feedback regulator of the ATF4-dependent transcription during the ISR: while TRIB3 expression is promoted by ATF4, TRIB3 protein interacts with ATF4 and inhibits ATF4 transcription activity (By similarity). Disrupts insulin signaling by binding directly to Akt kinases and blocking their activation (By similarity). May bind directly to and mask the 'Thr-308' phosphorylation site in AKT1 (By similarity). Interacts with the NF-kappa-B transactivator p65 RELA and inhibits its phosphorylation and thus its transcriptional activation activity (PubMed:12736262). Interacts with MAPK kinases and regulates activation of MAP kinases (PubMed:15299019). Can inhibit APOBEC3A editing of nuclear DNA (PubMed:22977230). {ECO:0000250|UniProtKB:Q8K4K2, ECO:0000269|PubMed:12736262, ECO:0000269|PubMed:15299019, ECO:0000269|PubMed:15775988, ECO:0000269|PubMed:15781252, ECO:0000269|PubMed:22977230}.

Molecular Weight: 39.6 kDa

UniProt: [Q96RU7](#)

Pathways: [Fc-epsilon Receptor Signaling Pathway](#), [EGFR Signaling Pathway](#), [Neurotrophin Signaling Pathway](#), [Regulation of Lipid Metabolism by PPARalpha](#)

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

Application Details

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)