Datasheet for ABIN3136126

KATNB1 Protein (AA 1-658) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	KATNB1
Protein Characteristics:	AA 1-658
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This KATNB1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MATPVVTKTA WKLQEIVAHA SNVSSLVLGK ASGRLLATGG DDCRVNLWSI NKPNCIMSLT GHTSPVESVR LNTPEELIVA GSQSGSIRVW DLEAAKILRT LMGHKANICS LDFHPYGEFV ASGSQDTNIK LWDIRRKGCV FRYRGHSQAV RCLRFSPDGK WLASAADDHT VKLWDLTAGK MMSEFPGHTG PVNVVEFHPN EYLLASGSSD RTIRFWDLEK FQVVSCIEGE PGPVRSVLFN PDGCCLYSGC QDSLRVYGWE PERCFDVVLV NWGKVADLAI CNDQLIGVAF SQSNVSSYVV DLTRVTRTGT VTQDPVQANQ PLTQQTPNPG VSLRRIYERP STTCSKPQRV KHNSESERRS PSSEDDRDER ESRAEIQNAE DYNEIFQPKN SISRTPPRRS EPFPAPPEDD AATVKEVSKP SPAMDVQLPQ LPVPNLEVPA RPSVMTSTPA PKGEPDIIPA TRNEPIGLKA SDFLPAVKVP QQAELVDEDA MSQIRKGHDT MFVVLTSRHK NLDTVRAVWT TGDIKTSVDS AVAINDLSVV VDLLNIVNQK ASLWKLDLCT TVLPQIEKLL QSKYESYVQT GCTSLKLILQ RFLPLITDIL AAPPSVGVDI SREERLHKCR LCFKQLKSIS GLVKSKSGLS GRHGSAFREL HLLMASLD **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

Product Details

	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)

Target Details

Target:	KATNB1
Alternative Name:	Katnb1 (KATNB1 Products)
Background:	Katanin p80 WD40 repeat-containing subunit B1 (Katanin p80 subunit B1) (p80 katanin),FUNCTION: Participates in a complex which severs microtubules in an ATP-dependent manner. May act to target the enzymatic subunit of this complex to sites of action such as the centrosome. Microtubule severing may promote rapid reorganization of cellular microtubule arrays and the release of microtubules from the centrosome following nucleation. Microtubule release from the mitotic spindle poles may allow depolymerization of the microtubule end proximal to the spindle pole, leading to poleward microtubule flux and poleward motion of chromosome. The function in regulating microtubule dynamics at spindle poles seems to depend on the association of the katanin KATNA1:KATNB1 complex with ASPM which recruits it to microtubules. Reversely KATNA1:KATNB1 can enhance ASPM blocking activity on microtubule minus-end growth. Microtubule release within the cell body of neurons may be required for their transport into neuronal processes by microtubule-dependent motor proteins. This transport is required for axonal growth. {ECO:0000255|HAMAP-Rule:MF_03022, ECO:0000269|PubMed:28436967}.
Molecular Weight:	72.6 kDa
UniProt:	Q8BG40
Pathways:	Microtubule Dynamics

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.

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)

