Datasheet for ABIN3094098

NEK4 Protein (AA 1-841) (Strep Tag)

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1 Image

Overview

Quantity:	1 mg
Target:	NEK4
Protein Characteristics:	AA 1-841
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This NEK4 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MPLAAYCYLR VVGKGSYGEV TLVKHRRDGK QYVIKKLNLR NASSRERRAA EQEAQLLSQL KHPNIVTYKE SWEGGDGLLY IVMGFCEGGD LYRKLKEQKG QLLPENQVVE WFVQIAMALQ YLHEKHILHR DLKTQNVFLT RTNIIKVGDL GIARVLENHC DMASTLIGTP YYMSPELFSN KPYNYKSDVW ALGCCVYEMA TLKHAFNAKD MNSLVYRIIE GKLPPMPRDY SPELAELIRT MLSKRPEERP SVRSILRQPY IKRQISFFLE ATKIKTSKNN IKNGDSQSKP FATVVSGEAE SNHEVIHPQP LSSEGSQTYI MGEGKCLSQE KPRASGLLKS PASLKAHTCK QDLSNTTELA TISSVNIDIL PAKGRDSVSD GFVQENQPRY LDASNELGGI CSISQVEEEM LQDNTKSSAQ PENLIPMWSS DIVTGEKNEP VKPLQPLIKE QKPKDQSLAL SPKLECSGTI LAHSNLRLLG SSDSPASASR VAGITGVCHH AQDQVAGECI IEKQGRIHPD LQPHNSGSEP SLSRQRRQKR REQTEHRGEK RQVRRDLFAF QESPPRFLPS HPIVGKVDVT STQKEAENQR RVVTGSVSSS RSSEMSSSKD RPLSARERRR LKQSQEEMSS SGPSVRKASL SVAGPGKPQE EDQPLPARRL SSDCSVTQER KQIHCLSEDE LSSSTSSTDK SDGDYGEGKG QTNEINALVQ LMTQTLKLDS

KESCEDVPVA NPVSEFKLHR KYRDTLILHG KVAEEAEEIH FKELPSAIMP GSEKIRRLVE VLRTDVIRGL GVQLLEQVYD LLEEEDEFDR EVRLREHMGE KYTTYSVKAR QLKFFEENMN F

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.

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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:	NEK4
Alternative Name:	NEK4 (NEK4 Products)
Background:	Serine/threonine-protein kinase Nek4 (EC 2.7.11.1) (Never in mitosis A-related kinase 4) (NimA-related protein kinase 4) (Serine/threonine-protein kinase 2) (Serine/threonine-protein kinase NRK2),FUNCTION: Protein kinase that seems to act exclusively upon threonine residues (By similarity). Required for normal entry into proliferative arrest after a limited number of cell divisions, also called replicative senescence. Required for normal cell cycle arrest in response to double-stranded DNA damage. {ECO:0000250|UniProtKB:Q9Z1J2, ECO:0000269|PubMed:22851694}.
Molecular Weight:	94.6 kDa
UniProt:	P51957

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.

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Application Details

	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)

Images

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

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