

Datasheet for ABIN3094249

## NUAK2 Protein (AA 1-628) (Strep Tag)



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### Overview

Quantity:	250 µg
Target:	NUAK2
Protein Characteristics:	AA 1-628
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This NUAK2 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

### Product Details

Brand:	AliCE®
Sequence:	<p>MESLVFARRS GPTPSAAELA RPLAEGLIKS PKPLMKKQAV KRHHHKHNLR HRYEFLETG</p> <p>KGTYGKVKKA RESSGRLVAI KSIRKDIKD EQDLMHIRRE IEIMSSLNHP HIIAIHEVFE</p> <p>NSSKIVIME YASRGDLYDY ISERQQLSER EARHFFRQIV SAVHYCHQNR VVHRDLKLEN</p> <p>ILLDANGNIK IADFGLSNLY HQGKFLQTFC GSPLYASPEI VNGKPYTGPE VDSWSLGVLL</p> <p>YILVHGTMPF DGHDKILVK QISNGAYREP PKPSDACGLI RWLLMVNPTR RATLEDVASH</p> <p>WWVNWGYATR VGEQEAPHEG GHPGSDSARA SMADWLRRSS RPLLENGAKV CSFFKQHAPG</p> <p>GGSTTPGLER QHSLKKSKE NDMAQSLHSD TADDTAHRPG KSNLKLPGKI LKKKVSASAE</p> <p>GVQEDPPELS PIPASPGQAA PLLPKKGILK KPRQRESGY YSSPEPSESGE LLDAGDVFVS</p> <p>GDPKEQKPPQ ASGLLLHRKG ILKLNKFSQ TALELAAPTT FGSLDELAPP RPLARASRPS</p> <p>GAVSEDSILS SESFDQLDLP ERLPEPLRG CVSVDNLTGL EEPPESEGPS CLRRWRQDPL</p> <p>GDSCFSLTDC QEVTATYRQA LRVCSKLT</p>

**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.**

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### Characteristics:

#### Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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 against its specific reference buffer.
- We use the ExPASy's ProtParam tool to determine the absorption coefficient of each protein.

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### Purification:

One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®).

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### Purity:

> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

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## Product Details

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Grade: custom-made

## Target Details

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Target: NUAK2

Alternative Name: NUAK2 ([NUAK2 Products](#))

Background: NUAK family SNF1-like kinase 2 (EC 2.7.11.1) (Omphalocyte kinase 2) (SNF1/AMP kinase-related kinase) (SNARK),FUNCTION: Stress-activated kinase involved in tolerance to glucose starvation. Induces cell-cell detachment by increasing F-actin conversion to G-actin. Expression is induced by CD95 or TNF-alpha, via NF-kappa-B. Protects cells from CD95-mediated apoptosis and is required for the increased motility and invasiveness of CD95-activated tumor cells. Phosphorylates LATS1 and LATS2. Plays a key role in neural tube closure during embryonic development through LATS2 phosphorylation and regulation of the nuclear localization of YAP1 a critical downstream regulatory target in the Hippo signaling pathway (PubMed:32845958). {ECO:0000269|PubMed:14575707, ECO:0000269|PubMed:14976552, ECO:0000269|PubMed:15345718, ECO:0000269|PubMed:19927127, ECO:0000269|PubMed:32845958}.

Molecular Weight: 69.6 kDa

UniProt: [Q9H093](#)

## Application Details

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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.

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## Application Details

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Restrictions: For Research Use only

## Handling

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Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol <b>Might differ depending on protein.</b>
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months