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Datasheet for ABIN3136586

**FOXN4 Protein (AA 1-521) (Strep Tag)**

## Overview

Quantity:	1 mg
Target:	FOXN4
Protein Characteristics:	AA 1-521
Origin:	Mouse
Source:	Tobacco ( <i>Nicotiana tabacum</i> )
Protein Type:	Recombinant
Purification tag / Conjugate:	This FOXN4 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

## Product Details

Sequence: MIESGIWSRM SEMIRSSGHS HHCSPQEYRF LPPVGDDDL P GDLQSLSWLT AVDVPRLQQM  
ANGRIDLGSS GVTHPHPGAL AGTADLHVGA APRPLRRSQ TAVVPRGVLG LSPIGNHRAS  
AEQMNQFPAG GQASSGLQEM PQLYSPATQI PFPLPLGSQQ CPPAGLYGSP FSARPSYPQA  
HGAMHASQEP HPKHYPKPIY SYSCLIAMAL KNSKTGSLPV SEIYSFMKEH FPYFKTAPDG  
WKNSVRHNLN LNKCFEKVET KSSGSSRKGC LWALNLARID KMEEEMHKWK RKDLAAIHRS  
MANPEELDKL ISDRPESCRR PGKRGEKAP MLTHATTVAM AHSCLAISQL PPKPLMTLSL  
QSVPLHHQLQ PQAHLAPDSP APAQTPPLHA LPSLSPGPLP QPAMGRVPGD FLNINSDMNT  
EVDALDPSIM DFALQGNLWE EMKEDSFSLD TLEAFGDSPL GCDLGAPSLT PVSGNSDQSF  
PDVQVTGLYA AYSTAADGVA PSAANSAQYL GTPGNKPIAL L

**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.**

## Product Details

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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:

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

## Target Details

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### Target:

FOXN4

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## Target Details

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Alternative Name: [Foxn4 \(FOXN4 Products\)](#)

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Background: Forkhead box protein N4,FUNCTION: Transcription factor essential for neural and some non-neural tissues development, such as retina and lung respectively. Binds to an 11-bp consensus sequence containing the invariant tetranucleotide 5'-ACGC-3'. During development of the central nervous system, is required to specify the amacrine and horizontal cell fates from multipotent retinal progenitors while suppressing the alternative photoreceptor cell fates through activating DLL4-NOTCH signaling. Also acts synergistically with ASCL1/MASH1 to activate DLL4-NOTCH signaling and drive commitment of p2 progenitors to the V2b interneuron fates during spinal cord neurogenesis. In development of non-neural tissues, plays an essential role in the specification of the atrioventricular canal and is indirectly required for patterning the distal airway during lung development. {ECO:0000269|PubMed:15363391, ECO:0000269|PubMed:16020526, ECO:0000269|PubMed:17728344, ECO:0000269|PubMed:21438071, ECO:0000269|PubMed:22323600, ECO:0000269|PubMed:23652001}.

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Molecular Weight: 56.1 kDa

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UniProt: [Q8K3Q3](#)

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## 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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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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Restrictions: For Research Use only

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## Handling

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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)