

Datasheet for ABIN3094268

**NR4A3 Protein (AA 1-626) (Strep Tag)**[Go to Product page](#)**1** Image

## Overview

Quantity:	1 mg
Target:	NR4A3
Protein Characteristics:	AA 1-626
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This NR4A3 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

## Product Details

Sequence: MPCVQAQYSP SPPGSSYAAQ TYSSEYTTET MNPDYTKLTM DLGSTEITAT ATTSLSISIT  
FVEGYSSNYE LKPSCVYQMQ RPLIKVEEGR APSYHHHHHH HHHHHHHHHQ QHQQPSIPPA  
SSPEDEVLP SSMYFKQSPP STPTTPAFPP QAGALWDEAL PSAPGCIAPG PLLDPPMKAV  
PTVAGARFPL FHFKPSPPHP PAPSPAGGHH LGYDPTAAAA LSLPLGAAAA AGSQAAALES  
HPYGLPLAKR AAPLAFPLG LTPSPTASSL LGESPSLPSP PSRSSSSGEG TCAVCGDNAA  
CQHYGVRTCE GCKGFFKRTV QKNAKYVCLA NKNCPVDKRR RNRCQYCRFQ KCLSVGMVKE  
VVRTDSLKGR RGRPLSKPKS PLQQEPSQPS PPSPPICMMN ALVRALTDST PRDLDSRYC  
PTDQAAAGTD AEHVQQFYNL LTASIDVSRS WAEKIPGFTD LPKEDQTLTI ESAFLELFVL  
RLSIRSNTAE DKFVFCNGLV LHRLQCLRGF GEWLDSIKDF SLNLQSLNLD IQALACLSAL  
SMITERHGLK EPKRVEELCN KITSSLKDHQ SKGQALEPTE SKVLGALVEL RKICTLGLQR  
IFYLKLEDLV SPSSIIDKLF LDTLPF

**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 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)
Grade:	Crystallography grade

## Target Details

Target:	NR4A3
Alternative Name:	NR4A3 ( <a href="#">NR4A3 Products</a> )
Background:	<p>Nuclear receptor subfamily 4 group A member 3 (Mitogen-induced nuclear orphan receptor) (Neuron-derived orphan receptor 1) (Nuclear hormone receptor NOR-1),FUNCTION:</p> <p>Transcriptional activator that binds to regulatory elements in promoter regions in a cell- and response element (target)-specific manner. Induces gene expression by binding as monomers to the NR4A1 response element (NBRE) 5'-AAAAGGTCA-3' site and as homodimers to the Nur response element (NurRE) site in the promoter of their regulated target genes (By similarity). Plays a role in the regulation of proliferation, survival and differentiation of many different cell types and also in metabolism and inflammation. Mediates proliferation of vascular smooth muscle, myeloid progenitor cell and type B pancreatic cells, promotes mitogen-induced vascular smooth muscle cell proliferation through transactivation of SKP2 promoter by binding a NBRE site (By similarity). Upon PDGF stimulation, stimulates vascular smooth muscle cell proliferation by regulating CCND1 and CCND2 expression. In islets, induces type B pancreatic cell proliferation through up-regulation of genes that activate cell cycle, as well as genes that cause degradation of the CDKN1A (By similarity). Negatively regulates myeloid progenitor cell proliferation by repressing RUNX1 in a NBRE site-independent manner. During inner ear, plays a role as a key mediator of the proliferative growth phase of semicircular canal development (By similarity). Mediates also survival of neuron and smooth muscle cells, mediates CREB-induced neuronal survival, and during hippocampus development, plays a critical role in pyramidal cell survival and axonal guidance. Is required for S phase entry of the cell cycle and survival of smooth muscle cells by inducing CCND1, resulting in RB1 phosphorylation. Binds to NBRE motif in CCND1 promoter, resulting in the activation of the promoter and CCND1 transcription (By similarity). Also plays a role in inflammation, upon TNF stimulation, mediates monocyte adhesion by inducing the expression of VCAM1 and ICAM1 by binding to the NBRE consensus</p>

## Target Details

site (By similarity) (PubMed:20558821). In mast cells activated by Fc-epsilon receptor cross-linking, promotes the synthesis and release of cytokines but impairs events leading to degranulation (By similarity). Also plays a role in metabolism, by modulating feeding behavior, and by playing a role in energy balance by inhibiting the glucocorticoid-induced orexigenic neuropeptides AGRP expression, at least in part by forming a complex with activated NR3C1 on the AGRP- glucocorticoid response element (GRE), and thus weakening the DNA binding activity of NR3C1. Upon catecholamines stimulation, regulates gene expression that controls oxidative metabolism in skeletal muscle (By similarity). Plays a role in glucose transport by regulating translocation of the SLC2A4 glucose transporter to the cell surface (PubMed:24022864). Finally, during gastrulation plays a crucial role in the formation of anterior mesoderm by controlling cell migration. Inhibits adipogenesis (By similarity). Also participates in cardiac hypertrophy by activating PARP1 (By similarity). {ECO:0000250|UniProtKB:P51179, ECO:0000250|UniProtKB:Q9QZB6, ECO:0000269|PubMed:20558821, ECO:0000269|PubMed:24022864}.

Molecular Weight: 68.2 kDa

UniProt: [Q92570](#)

Pathways: [Fc-epsilon Receptor Signaling Pathway](#), [Nuclear Receptor Transcription Pathway](#), [Steroid Hormone Mediated Signaling Pathway](#)

## 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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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